

EDUCATION
TODAY

Social Learning
& its Measurement

M. L. Kellmer Pringle

LONGMANS



SL - ~~1629~~

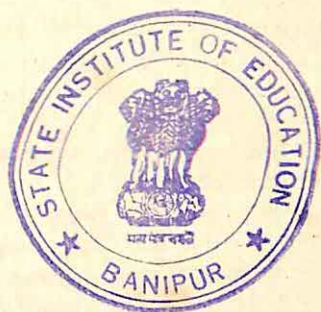
~~D~~
~~468~~

~~4703~~



EDUCATION TODAY

Social Learning and Its Measurement



EDUCATION TODAY

Other titles in this series

- An Introduction to the Child Care Service *John Stroud*
Social Science and Social Studies in Secondary Schools *W. Philip and R. Priest*
Communication in Speech *Arthur Wise*
Student Guidance *F. Claude Palmer*
Programmed Learning in the Schools *John Leedham and Derick Unwin*
A Basic Science Course for Secondary Schools *Edited by Michael Robinson*
Introducing Social Studies *W. J. Hanson*
Investment in Children *Edited by M. L. Kellmer Pringle*
Living Speech in the Primary School *Diana L. Morgan*
An Approach to Literature *Roy Stevens*
Development through Drama *Brian Way*
An Introduction to the Philosophy of Religion *J. L. Goodall*
- Language Teaching*
The Visual Element in Language Teaching *S. Pit Corder*
Teaching English to Immigrants *June Derrick*

Social Learning and Its Measurement

M. L. KELLMER PRINGLE BA PHD

Director, National Bureau for Co-operation in Child Care



LONGMANS



LONGMANS GREEN & CO LTD
48 Grosvenor Street, London W1

Associated companies, branches and representatives throughout the world

© M. L. Kellmer Pringle 1966

First published 1966

Printed in Great Britain by

Richard Clay (The Chaucer Press), Ltd

Bungay, Suffolk

15.9.93

7393

Contents

FOREWORD	<i>page</i> vii
1 SOCIAL LEARNING AND ITS MEASUREMENT	i
2 A BRITISH STUDY OF THE VINELAND SOCIAL Maturity SCALE	25
3 DISCREPANCIES BETWEEN INTELLIGENCE AND SOCIAL COMPETENCE (with W. D. Wall)	40
4 THE USE OF THE VINELAND SOCIAL MATURITY SCALE FOR DIAGNOSIS AND TREATMENT	71
Appendix to Chapter Three Discrepancy distributions in the Normal, Child Guidance and Intensive Samples	89
Bibliography	94
Author Index	100

Foreword

'Be good, fair maid, and let who will be clever.
Do noble deeds, not dream them all day long.
And so make life,
One sweet song.'

In their quaint, old-fashioned language the Victorian moralists anticipated, perhaps, a thought which today would be expressed more brusquely: 'Don't bother about your I.Q. girl – look to your social competence.'

However the thought may be expressed, it would seem to be clear that healthy maturity is attained only through the harmonious development of two basic components of human personality. One component is intellectual competence as measured by intelligence tests – the I.Q. The other component is a personality variable aptly described in this book as 'social competence', which is measurable to some degree of accuracy by scales of social maturity such as that developed by Doll in his Vineland Scale of social maturity.

There is evidence which suggests that S.Q. (the social quotient) is a function of I.Q. (the intelligence quotient). Virtue, Plato suggests, is a function of wisdom. This was an interesting philosophical hunch, but things are not quite so simple as this. Intelligence and the fruits of intelligence do no doubt contribute to social adjustment, but there are glaring exceptions. This book contributes to the elucidation of the important but complicated issues.

It provides an introduction to the ideas behind the Vineland Scale as an instrument for measuring social competence. It records a meticulous study of the application of this scale to English children and it reports an investigation into the discrepancies between I.Q. and S.Q. The author concludes that the Vineland Scale is a useful new tool. It supplements by a quantitative measure the subjective and qualitative judgements commonly made in the diagnosis and treatment of backward, maladjusted and delinquent children. Though limited in its application to

FOREWORD

children beyond the age of ten years, there can be little doubt that it could be developed to provide an important instrument for educational guidance in whatever system may replace the now widely discredited 11+ examination.

This book, and the reports of research it contains, is a model of the application of scientific method to human problems. It combines technical precision with understanding. Here the individual child is not just a number in a table or a point on a graph. Neither the tables nor the graphs can be appreciated without reference to the case histories so sympathetically recorded in this book. Like all good research reports its conclusions point to the need of yet further research. It should be not only read, but also *studied* by all who are concerned in any way with the welfare and guidance of the young.

C. A. MACE

*Emeritus Professor of Psychology,
University of London*

*Social Learning and Its Measurement*¹

The adult who is socially mature is not hard to recognise. He has achieved independence from his parents, he has found security in friendships among his contemporaries, he has made an adjustment to accepted customs and conventions, he has settled upon a stable sexual pattern, most commonly in monogamous marriage, and he has found work that satisfies him. With regard to the child, we implicitly accept that there are some developmental standards or norms for social maturity just as there are for physical, emotional or intellectual maturity. Thus, as parents or teachers, we say to the six-year-old, 'you are old enough to come to school by yourself', or to the eight-year-old, 'you ought to be able to tell the time', or to the ten-year-old, 'most boys of your age run errands for their mother'. Whenever we say to a child 'you are old enough to do this for yourself', we implicitly recognise the fact that increasing responsibilities and independence accompany social growth. Awareness of the 'social ages of man' is as old as literature and as new as science. In *As You Like It*, Shakespeare poetically describes man's seven ages, while during this century many attempts have been made at more formal definitions of the successive stages of social growth, from the utter dependence of babyhood to the independence of the adult.

In recent years there has been increasing emphasis on the central part which social development plays in the development of the whole personality. One writer has even defined personality as 'social effectiveness'. Anderson and Anderson (1954) point out that in all recorded history man has struggled with two problems of social behaviour. The first is how to be an individual; how to have ideas of one's own; how to learn from one's own experience and to develop judgment based upon this experience;

¹ *Educational Research*, vol. 2, no. 3, June 1960.

how to think for oneself; how to grow and develop psychologically to one's optimum. But in trying 'to be oneself', one frequently makes life inconvenient for others. This is how the second problem of social behaviour arises. It lies in the struggle to reconcile individual differences in motives, values and actions. Though individuals are different, they must exercise these differences in such a way as to achieve the greatest possible harmony in social living. This second problem of achieving harmony is thus inextricably linked with the first one of individual freedom.

It can be argued that social development is basic to these twin problems of individual differences or differentiation on the one hand, and harmony or integration on the other. The concepts of differentiation and integration have been used by Toynbee (1939) in the interpretation of *The Growths of Civilisations*, to account for the successful development as well as for the arrested growth of civilisations. As he sees it the growth of civilisation is a process of differentiation and integration, the most essential criterion being an increase in self-determination.

Thus almost every society lays down some standards defining the rights and duties of individuals; without them there could be no order or stability. One aspect of growing up involves the process of increasing conformity to the accepted cultural norm of the adult world. It is perhaps debatable to what extent the desire and struggle for individual freedom and optimum personal development is learned or innate; there is little doubt that harmony and conformity must be learned, indeed they present the very essence of social learning.

The concept of social maturity

The general concept of social maturity and the more specific one of social competence, are crucial for psychological study. Even more than on mental level or educational achievement, satisfactory emotional adjustment of a human being depends upon the adequacy with which he meets the growth tasks set by the culture and by the group in which he finds himself. Educational attainment can itself be viewed as a social task, at least for school-children, though it is neither the only nor even the most important

one. In a rough and ready way we compare the social growth of children, when, for example, we say that 'Mary is old for her age' or 'John seems socially immature'. A more objective analysis and evaluation of the way in which a boy or girl is conforming to the social growth tasks set by his culture and his society would be of fundamental importance in the classroom, the Juvenile Court, the workshop and the community at large. A promising empirical beginning might be made in the field of 'social competence' in terms of sampling the social achievements demanded by a particular society. A thorough analysis of causative factors can at present only be approached subjectively, inferentially, and imperfectly. Attempts at measurement should clear the way for a closer study of the extent to which environmental modifications can influence social development.

At once we are beset with problems of definition. Terms such as 'socialisation', 'social maturity', 'anti-social traits', are frequently found in educational and psychological discussion: public schools pride themselves on giving 'character and social training'; delinquents are said to be 'socially immature'; how preschool-children learn 'social participation' has been studied in detail. But still definition is lacking. No doubt one reason for this is that standards of social behaviour differ not only from one society to another but also from one social class to another in the same society. Anthropologists, notably Benedict and Mead, have shown how a form of social behaviour, despised in one culture, may be prized in another. Since cultural norms vary widely from society to society, meaningful generalisations cannot readily be made. However, despite these difficulties, some attempt at definition must be made to clarify at least the concept of social competence. The following tentative definition is suggested:

Social competence is manifested by the extent to which an individual is able and willing to conform to the customs, habits and standards of behaviour prevailing in the society in which he lives; by the degree to which he is able to do so independently of direction and guidance; and by the extent to which he participates constructively in the affairs and conduct of his community.

Of course, this definition is mainly descriptive and begs fundamental questions both as to causes and as to their interaction.

Moreover it could be argued that acceptance of and conformity to prevailing customs, habits and standards may not be desirable if the particular society happens to be overmaterialistic, corrupt or degenerate. However, such arguments lead into moral and philosophical realms outside the scope of this discussion.

Similarly, this definition deliberately avoids the much more complex question of social maturity. Just as the acquisition of educational skills does not necessarily make a man truly educated, so the acquisition of social 'know-how' does not ensure that he will be socially mature. The achievement of social maturity demands an even broader, deeper and richer development of the human personality than does intellectual maturity. It requires not only self-confidence in social situations, a satisfactory self-image, freedom from egocentricity and ability to cooperate with others but also the growth and cultivation of sensitivity, imagination, social perceptiveness and emotional involvement with others.

To devise an instrument for measuring social maturity would be a very considerable achievement. Since so far no one has succeeded in measuring educational maturity, it is perhaps not surprising that no attempt has been made in the much more complex area of social maturity. But just as the ability to measure educational attainments has proved to be of great practical value, so it would be a great step forward if it became possible to assess accurately the attainment of social competence.

Determinants of social competence

GENETIC AND HEREDITARY FACTORS

An individual's ability to conform to the standards laid down by his society depends upon genetic, hereditary, maturational and environmental factors. It is probably safe to assume that genetically children are equipped for social participation and social adaptation. Hereditary components may also influence the development of social competence. This is a possible hypothesis in cases of delayed social maturation such as is found in some problem children, juvenile delinquents and adult criminals. Their inability to conform to standards of conduct expected by society may spring from some hereditary defect or weakness, limiting

their capacity for attaining social maturity. This view is advanced by Doll (1937), who suggests that social maturity is distributed in a way similar to that of intelligence. He investigated a series of families and printed genealogical trees for four generations, showing that in some families social maturity never reached a normal level, while in others it was always above average. In Doll's opinion, this is evidence that heredity plays a part in the development of social maturity and that in some cases social defect may be inherited. At present this theory is rather speculative; it would be safer to assume that there may be disturbing or inhibiting factors in the emotional or intellectual life of the child or adult which account for inadequate social learning and a lower than expected level of social conformity.

MATURATION

'Maturation' refers to those changes in bodily or mental structure which mainly come about through growth. The connection between maturational factors on the one hand, and genetic and hereditary factors on the other, is, of course, close, since maturational rates and final levels achieved depend largely on these latter factors. At the same time, in all forms of learning certain growth stages have to be reached before specific functions can be acquired. In the development of social competence, as in educational progress, certain levels of maturation are prerequisites though not necessarily causative. For example, by fostering physical development we can assure that a child is not prevented or inhibited from learning social participation in games at the appropriate age. But this by itself will not ensure that he will also become willing to do so.

Intellectual growth is another prerequisite to social development. But maturation of inborn, intellectual ability is not the same as maturity of mind, which depends to a greater extent on social and emotional maturation. Thus the development of physical and intellectual readiness does not ensure either willingness or ability to adapt socially. This depends largely upon maturation in the emotional life. Indeed some writers, such as Bowley (1944), consider that from the very first stage of babyhood, social development is closely related to emotional development,

proceeding from the intimate family circle outwards to ever-widening social spheres. Here we can see the link between environmental factors and learning ability since without such ability the child will fail to appreciate his developing role and responsibilities as a member of the family and later of other social groups.

ENVIRONMENTAL FACTORS AND SOCIAL LEARNING

Social learning begins within the family, and the first social contact is that between mother and child. In feeding, the first step is taken from a purely physiological need to an acquired habit, which will become increasingly 'socialised', i.e. from sucking the nipple or teat, to the elaborate etiquette governing 'feeding habits' at a state banquet. In the dependency relationship of the child to the mother, later to the father and then to other people, is to be seen the primary socialising pattern, the task of learning to become a human being. The baby is born only with the potentiality to become a person, and has to be taught to become human. That the emotional and social attributes of personality are a function of living in a human society is demonstrated clearly by two phenomena: first, by the distortion in the development of children born without the necessary sense organs to perceive, communicate and thus interact with their environment, such as the deaf-blind; of these Helen Keller is the most famous example because she is one of the very few who have successfully broken through the immense barrier to social learning imposed by this dual handicap. Secondly, children who by some chance or mishap have been isolated from normal human contact during early infancy show a complete lack of those characteristics which we regard as specifically human, i.e. speech, emotional control and social skills (for example, the case of Anna described by Kingsley Davis, 1940 and 1947).

Within the family circle the child is introduced to a world that has regularity and predictability. Maternal approval and disapproval are the main devices for training and teaching the very young. Mothering, to begin with, ensures the sheer survival of the baby, but the complete indulgence of all his wants is changed gradually into a series of regulatory pressures or demands. By

withholding or granting adult approval and cooperation, the parent has constantly at his command a device for selectively rewarding (by responding to) those new, more mature responses which make their appearance. Without the capacity for learning the helpless infant could not become a socially mature adult; the group, in the first instance the family, has the important function of transmitting the social heritage to the maturing child. As he grows up an increasing number of groups continue this task: the adults and children in the neighbourhood, his classmates at school, members of any club he may belong to, and later his work-mates, as well as the various mass media of communication (such as the press, radio, TV and the cinema) increasingly familiarise him with the customs and standards of his culture.

How important these group influences are is shown not only by studies of different cultures but also, and perhaps as strikingly, by differences which exist between social groups even in our own culture. The farm labourer's son will acquire skills which the surgeon's son of the same age does not need and may even despise. Their speech, standard of personal hygiene, spare-time occupations and interests, will all reflect social differences in their home and neighbourhood setting. Other examples within the experiences of many teachers are neglected children in slum areas who are asocial, if not antisocial, because throughout their lives they have lacked adequate social training.

THE SOCIAL LEARNING OF DEVIANT CHILDREN

The study of exceptional children throws into relief the fact that the relationships so far discussed are more subtle and complex than at first appears. It seems possible, for example, that an unusually high level of intellectual maturity may prevent or make more difficult a commensurate degree of social maturity. Terman and Burke point out that precocity unavoidably complicates the problem of social adjustment. For example, the ten-year-old with an I.Q. of 150 can hardly be expected to function socially at the fifteen-year-old level. Yet his high ability will inevitably mark him off to some extent from his less-gifted contemporaries, while their social mores may well strike him as unacceptably childish. Thus, socially, he may constitute as much

of a problem as the exceptionally dull child. The difficulties of the latter lie in the fact that severely subnormal intelligence limits the pace and range of learning. Thus it will also hinder learning in social situations. Consequently the very slow-learning child finds himself at a disadvantage among his contemporaries not merely educationally but socially as well, since he has not yet mastered the social conventions of his peers.

Nevertheless it is known that certain types of mentally handicapped children, such as mongols, achieve a comparatively high degree of social adaptation; many learn to dress themselves, to help with simple household tasks, are sociable and easy to manage. However, this level of social conformity is reached mainly by virtue of their marked imitateness. Failure is conspicuous in the second and third categories of the definition suggested earlier: throughout their lives most mongols require guidance and remain unable to participate constructively in the affairs of their community.

Physically handicapped children will also inevitably be circumscribed to a greater or lesser degree depending on the nature and severity of their disability. For example, the severely cerebral palsied are unable to conform, even outwardly, with regard to such comparatively simple skills as eating habits. Even if they possess the necessary intellectual equipment for attaining full social maturity, physical limitations may often deny them this achievement. The handicapped child who attends a special school finds himself in a sheltered community designed to meet his needs. There he can feel safe, accepted and not so very much different from his fellows. But eventually he must once again face the outside world unless he is to spend his life in a residential institution of some kind. Perhaps the basic educational aim with handicapped pupils should be to enable them to achieve some measure of social usefulness so that they may gain a sense of social participation. An example of how this can be achieved can be seen at Condoover Hall School for blind, educationally subnormal children. Because normality and conformity are highly prized in our society, handicapped children are faced with a severe problem of social and emotional adjustment. Yet many handicapped adults, because of outstanding emotional stability, perseverance

and determination, achieve an unexpected measure of social adaptation despite their disabilities.

Special problems of social adaptation have to be met by another group, namely, those who spend the major part of their childhood in residential care. It is not easy in a large children's home to provide the same range of opportunities, both of a formal and an informal kind, which give rise to social learning in the everyday lives of children living with their own families. This is well recognised nowadays by those concerned with children in care, but overcoming these barriers to full social achievement is extremely difficult in practice, chiefly because of the acute shortage of suitable staff.

Lastly, the maladjusted child is often characterised by marked emotional immaturity, and this goes frequently hand in hand with inadequate social learning and a low level of social conformity. Though intelligent and with apparently sufficient opportunities for social learning, many neurotic children and adults show failure in social adaptation, such as overdependence, uncontrolled aggressiveness, an inability to mix and so on. On the other hand, precocious emotional development – often under the impact of stress at home or conflict in the child – may similarly, though perhaps more rarely, impede the development of adequate social adaptation.

Social competence – a measurable entity?

Any attempt to measure social competence raises two questions: first, is there a real progression in the level of social competence, independent of intelligence? Secondly, if the answer to this is in the affirmative, are there sufficient tasks, at different maturational levels, to make possible the construction of a scale extending from birth to maturity? With increasing age children are faced with an ever-increasing complexity of demands and expectations, and this is clearly shown by numerous developmental studies. Though none of these aim directly at a scale measuring general development, most of them provide an outline of progressive general development and suggest norms in the physical and intellectual, as well as in the social sphere.

During the preschool years comparatively simple and uniform demands are made. During the middle years of childhood, from five to eleven, most children are exposed to more or less uniform social pressure, though some variation is beginning to show. The start of compulsory schooling and the transition to the Junior School two years later, present focal points for new social adjustments. Educational difficulties also become apparent during this stage, particularly in reading, and scholastic failure may have far-reaching effects upon social and emotional development. From the age of eleven years onwards there is increasingly less uniformity of pressure and expectation. In addition to differences in educational environment there is during the 'teens an increased widening of abilities, interests and responsibilities; this carries with it a greater variety (and thus choice) of tasks as well as an increased chance of failure. All these changing conditions are likely to give rise to more marked differences in social development among adolescents.

It seems, then, that up to the age of about eleven years there may be sufficient uniformity of pressure and expectation to make possible the construction of norms of social development which are largely independent of social group and applicable at least within this country. Thereafter the sampling may well have to be wider and the alternatives more numerous to allow for increasing differences in educational and other environmental opportunities. For the purpose of measurement it would be necessary to subdivide the concept of social maturity into various aspects such as social competence, social knowledge, independence, foresight and so on. Of these, social competence is likely to be most readily measured. By this term is meant the ability to carry out social tasks normally achieved by children of a given age, as there are some fields in which all children are expected to reach eventually certain minimum standards. Examples of such fields are habits of eating, cleanliness, dressing, the attainment of personal and economic independence.

Thus social competence may be assessed by the adequacy which an individual shows in performing 'social tasks' at various levels. Such social competence might be regarded as one aspect of social maturity. Clearly, it is an important one and of the same

order as acquiring educational skills. Just as reading is an artefact of the environment, so is the form in which social competence finds expression. It is a learned response and must be assessed both in terms of capacity to respond and of actual level reached. Educational attainment gives an indication of how a child is meeting the relatively controlled and structured demands of school. Social competence will indicate the extent to which a child is meeting the less-controlled and structured demands of the ever-widening social group with which increasing age brings him into contact.

So far, few attempts have been made at objective measurement. Various methods used in studies of child development are suggestive, such as systematic observations, the case history or clinical approach, standard situation tests, ratings and developmental schedules. These, however, yield qualitative rather than quantitative data. Moreover, most investigations have concentrated upon the preschool years. What seems to be needed is a scale or measuring instrument which permits quantitative comparisons in social competence from birth to adulthood and which allows such measurement to be made in a brief period of time.

Doll's *Vineland Social Maturity Scale* (1940) is a first attempt at measurement of this kind. In spite of Vernon's (1938) view that it merits 'very thorough examination', it has received only limited attention in this country. Originally the scale was devised to measure the social abilities of children suspected of mental deficiency. It is interesting to note in passing that when Binet, in 1901, devised his individual scale for testing intelligence he aimed at solving a similar practical problem, namely, the setting up of objective criteria for determining intellectual defect in pupils of the Paris schools.

The central postulate of the scale rests, according to Doll (1947), 'on the assumption that individual social responsibility has a progressive development which matures as one aspect of individual growth and adjustment'. This he conceives in terms of individual responsibility (self-sufficiency) and group responsibility (social participation), and he holds that social adjustment cannot be adequately evaluated independently of social competence.

In childhood it finds expression chiefly as self-help, in adolescence as self-direction and in the mature adult as readiness to assume responsibility for the welfare of others.

There are 117 items in the scale, calling on 'increasing social adequacy at successive developmental stages', and they are grouped in the following eight categories:

self-help general	occupation
self-help eating	communication
self-help dressing	locomotion
self-direction	socialisation

The central purpose of each of these categories is to sample the main aspects of the ability to look after one's own practical needs. Every item represents an aspect of social responsibility expressed in a specific performance and mastery at each successive level reflects progressive freedom from the need of assistance, direction or supervision. As far as possible Doll has aimed at avoiding the influence of differential opportunity, training and special aptitudes or disabilities. Items have been selected in an attempt to make the scale as a whole equally suitable and applicable to boys and girls and it covers the age span from birth to thirty years of age.

It might be useful to illustrate the kind of tasks which appear in each of the eight categories listed above. The age at which a child is expected to have mastered the particular item is given in brackets:

- self-help general: cares for self at toilet (4 to 5 years)
- self-help eating: drinks from cup or glass unassisted (1 to 2 years)
- self-help dressing: buttons coat or dress (3 to 4 years)
- self-direction: is trusted with money (5 to 6 years)
- occupation: does routine household tasks (8 to 9 years)
- communication: writes occasional short letters (10 to 11 years)
- locomotion: goes about home town freely (9 to 10 years)
- socialisation: participates in pre-adolescent play (7 to 8 years)

To show the developmental sequence for one of the categories, 'occupation' might be given as an example. The first item appears

in the 0 to 1 year level, while the last-mentioned appears in the adult stage (25 years or older):

occupies self unattended
 scribbles with pencil or crayon
 transfers objects
 fetches or carries familiar objects
 initiates own play activities
 cuts with scissors
 helps at little household tasks
 uses pencil or crayon for drawing
 uses skates, sledge, wagon
 uses tools or utensils
 does routine household tasks
 does small remunerative work
 does simple creative work
 performs responsible routine chores
 has a job or continues schooling
 performs skilled work
 engages in beneficial recreation
 systematises own work
 supervises occupational pursuits
 directs or manages affairs of others
 performs expert or professional work
 creates own opportunities

For each of the 117 items of the scale detailed instructions are given to indicate the kind of behaviour or activity which can be considered as a successful performance for the item in question. Though the scoring itself is quite simple, careful judgment is needed in evaluating the information which has been collected and in using discretion to allow for variations in a child's circumstances. Here, too, detailed scoring instructions clarify the meaning of the individual items.

Doll maintains that there are limits to the unfolding of the 'social personality' just as there are limits to the development of intelligence. Social capacity, in his view, continues to develop until about the twenty-fifth year but shows little further growth

after that age. The scale is based on an interview either with the subject himself or with someone thoroughly familiar with the child's habitual behaviour. Simple, concrete information is asked for regarding the child's responses in a variety of social situations occurring in everyday life. There is one major weakness in the construction of the scale to which Doll himself draws attention: at the lower age ranges, behaviour is sampled fully and extensively; but later years, especially adolescence and adulthood, are inadequately covered. This is probably due to the fact that with increasing age it becomes progressively more difficult to eliminate the influence of such variables as sex, education, opportunity, intelligence and motivation.

Research results

In what follows the voluminous American work with the Vineland Scale will be very briefly reviewed; then studies reported in this country will be discussed in greater detail.

GROWTH RATES AND DEVELOPMENTAL PERIODS

There are several studies in each of these fields. Annual re-examinations were carried out by Doll both of normal and of mentally handicapped children. There appeared to be marked individual differences in rates of growth in social competence; usually growth after the age of twenty-five years was negligible, which confirmed the author in his view that this age is the normative average ceiling. With the mentally handicapped, longitudinal studies using the scale were found to be of value in confirming early diagnosis and in giving guidance to parents and institution staffs. A further validation of the scale has been found in the study of twins, using identical and non-identical twins as well as subjects of normal and subnormal intelligence.

In various studies concerning preschool children the scale has been found practicable and helpful. The results were used in the treatment of parent-child relations, in the analysis of infant behaviour problems and in parent education generally.

SOCIO-ECONOMIC LEVEL

Evidence here is somewhat conflicting. According to most studies, differences in environment seem to play a relatively minor part provided the subjects belong to the same culture. In one study, however, significant differences in social competence were found between children who came respectively from rural and urban areas. At the age of five years the city children were more competent socially, while at the age of ten years the position was reversed, the rural children being socially more advanced.

For mentally subnormal groups the correlation between parental social standing and the child's level of social competence was found to be negative. This reflects probably not so much environmental differences as the well-known tendency for very low-grade mentally handicapped children to come from superior families. Such families tend to continue the period of dependence for subnormal children much longer than is usual in culturally inferior homes.

DEPRIVED, MALADJUSTED AND DELINQUENT CHILDREN

Field studies of special groups indicate the utility of the instrument for practical as well as theoretical purposes. Investigations of children deprived of normal home life and living in residential institutions have aimed at assessing the psychological effects of such deprivation, especially for very young children. Attempts have also been made to find suitable control groups by matching institutionalised children with others placed in small foster homes.

In some long-term studies, notably the classical ones by Goldfarb (1943), it also proved possible to observe the social development of children who were placed in foster homes following a considerable period in a residential home. It was found that initially the children in institutions seemed to be as well, if not better, developed socially than those in the foster homes; for those children who were then fostered out, the situation began to change: their social competence declined whereas the group living in foster homes all the time continued to progress normally. This phenomenon suggests that when the support of the institution routine was removed, the thin shell of social maturity collapsed;

the children regressed then to more infantile and dependent behaviour, probably because of the early lack of personal affection and individual attention.

Studies of maladjusted children of varying levels of intelligence and with a wide variety of emotional problems show that treatment can be made more effective by having available an assessment of the children's level of social competence. At the same time it was found that neither social age nor the relationship between intelligence and social quotient provides a basis for making a prognosis regarding the type of problem behaviour likely to be shown by a particular maladjusted child.

Applying the scale to juvenile delinquents, Doll (1939) and his collaborators found that the typical delinquent is socially inadequate and irresponsible. Marked retardation in social competence was found in comparison with age and level of intelligence.

HANDICAPPED CHILDREN

Studies of deaf, blind, epileptic and physically handicapped children have suggested the ways in which a particular handicap affects the development of social competence. In addition, through the retrospective use of the scale, records may be obtained to plot the course of improvement or deterioration in a child's social learning. Cumulative growth rates indicate the general trend of progress or retrogression.

Lastly, the results of the scale have been valuable in deciding upon the most appropriate placement for a child; whether, for example, he will do best living at home and being given work assignments there, whether he can go out daily to a protected workshop or whether institutional life would best meet his needs.

The greatest use of the scale in the United States has undoubtedly been with mentally handicapped children and adults. Indeed, Doll (1937) believes social competence levels can be used as differential criteria for conditions of slight, severe and extremely severe conditions of mental subnormality. If this proves to be the case the scale would be of great practical value not only in deciding on the most suitable education and placement of the mentally handicapped but also in planning suitable training programmes and evaluating their long-term effects. To Doll and

his associates it appears that social age provides a more effective basis of classification for purposes of education, training or care than does mental age. It is claimed by them that the scale has demonstrated its ability to differentiate between true mental defectives who are socially inadequate and those who are merely of subnormal intellect but quite competent in managing their personal and social lives.

Studies in this country

NORMAL CHILDREN

To assess the validity of the Vineland Scale and its applicability in this country, an intensive study of 250 cases was undertaken by the author. Among the main variables were intelligence, educational level, personal adjustment and parental socio-economic status. The age range of the children was from six to eight years. The main results of this study will be described in some detail later. In summary, no sex differences were found, nor were there any differences in social competence between children from four different social areas. Yet there were significant differences both in intelligence and reading attainment. It seems that at this age level at any rate, diverse environments offer those opportunities that lead to an average development of social competence. Alternatively, at this comparatively early age social expectations may not, as yet, be sufficiently differentiated from area to area and between one social class and another, to result in measurably different social quotients. Marked advancement or retardation in social competence compared with mental level, was found to be associated with some emotional disturbance.

MALADJUSTED AND DELINQUENT CHILDREN

To illustrate the usefulness of the Scale, Bodman (1946) applied it to one hundred problem children referred for psychiatric advice. He found that despite unfavourable environments, many children had normal social quotients, but also that in some cases excessive social pressure had resulted in undesirable behaviour patterns. The data suggested that there is less variability for social than for intelligence quotients.

Dunsdon (1947) used the scale for studying all the juvenile delinquents who were brought before the court in one particular area during a period of five years. In every case showing a low level of social competence she found also a lower than expected level of achievement at school or at work. However, a large proportion of delinquents over sixteen years of age showed comparative acceleration in social development. Dunsdon concluded that in these cases the attempt at shouldering social responsibilities without commensurate intellectual comprehension was one of the major causes of the delinquent breakdown.

DEPRIVED CHILDREN

A study of the social adaptation of children living in residential care was made by Bodman, McKinlay and Sykes (1950). They matched fifty-one children who had spent at least three years living in a residential Home with a control group brought up by their own parents, and studied a number of variables, including the children's family history and their social activities. The institution children were found to be less mature socially than the control group. There was also a much higher incidence of parental instability or of mental defect in the parents of the institution group. From this the investigators concluded that social maturation was influenced at least as much by constitutional as by environmental factors.

In a study of the development and achievement of 188 deprived children living in residential care, Kellmer Pringle and Bossio (1958) found that social competence was the only aspect in which the development of the deprived equalled that of ordinary children. This was the case for both sexes and for the three age groups making up the sample (namely, eight-, eleven- and fourteen-year-olds). These results confirmed other investigations which suggested that institutional routine involves unduly high demands for social independence and thus tends to produce precocious but at the same time rather precarious social development.

In a comparative study of a very stable and a severely mal-adjusted group of children in care, Kellmer Pringle and Bossio (1960) found the latter group to be rather less mature socially.

In addition the maladjusted group tended to show from time to time regressive tendencies in social behaviour, both in the Home and at school.

Conclusions

Attempts to measure the social aspects of human growth are as yet only in the beginning stages and our knowledge of norms of social development is still inadequate. Doll's 'Vineland Social Maturity Scale' is an instrument which makes measurement possible in at least one area. In a field where concepts are misty and ill-defined, it must be regarded as a valuable first attempt to clarify various theoretical assumptions and to explore the practical possibility of quantification. At the same time it needs to be stressed that the scale must still be regarded as experimental. Moreover, it may mislead: it does not measure social maturity but social competence, i.e. conformity and 'know-how'.

Teachers, probation officers, youth employment officers and others professionally concerned with children would find an instrument of this kind an important practical aid in diagnosis and guidance. However, before a wider use of the Vineland Scale can be advocated in this country, a number of things remain to be done. Chief among them are the expansion of the scale by increasing the number of items in each year group after the present ninth year; the standardisation of this enlarged version of the scale in England; the preparation of a manual which gives a more detailed analysis of the behaviour required for each item than appears in the present manual. At present it is perhaps of greatest value with deviant children in whose cases social competence is an issue of practical importance. Both in diagnosis and in treatment the scale can provide additional insight into the difficulties and the needs of the educationally backward, the physically or mentally handicapped, the emotionally maladjusted and the delinquent child.

References

- ALLPORT, G. E. (1949) *Personality*. Constable.
- ANDERSON, H. H., and ANDERSON, G. L. (1954) 'Social development', in *Manual of Child Psychology*, ed. L. Carmichael, Chap. 19. New York, Wiley.
- BODMAN, F. (1946) 'Social maturity test', *Journal of Mental Science*, **92**, 532-41.
- BODMAN, F., MCKINLEY, M., and SYKES, K. (1950) 'The social adaptation of institution children', *The Lancet*, **x**.
- BOWLEY, A. H. (1944) *The natural development of the child*. Livingstone.
- BRACKEN, HELMUT VON (1943) 'Investigation on twins concerning the development of self-sufficiency in children' (trans. by Marianne H. Wasson), *Training School Bulletin*, **39**, 177-188, 198-208.
- BRADWAY, KATHERINE P. (1937a) 'The social competence of deaf children', *American Annals of the Deaf*, **82**, 122-40.
- BRADWAY, KATHERINE P. (1937b) 'Social competence of exceptional children: I. Measurement of social competence; II. The mentally subnormal; III. The deaf, the blind and the crippled', *Exceptional Children*, **4**, 1-8, 38-42, 64-9.
- BRADWAY, KATHERINE P. (1938) 'Social competence of grade school-children', *Journal of Experimental Education*, **6**, 326-331.
- BRIDGES, K. (1931) *Social and emotional development of the preschool child*. Routledge and Kegan Paul.
- BUHLER, G. (1947) *From birth to maturity*. Routledge and Kegan Paul.
- CAPWELL, DORA F. (1945) 'Personality patterns of adolescent girls: II. Delinquents and non-delinquents', *Journal of Applied Psychology*, **29**, 289-97.
- CERES, C. MILDRED (1946) 'A study of the Vineland Social Maturity Scale applied to young normal children', unpublished M.A. thesis, State University of Iowa.

- DAVIS, K. (1940 and 1947) 'Extreme social isolation of a child', *American Journal of Sociology*, **45** and **52**.
- DEACON, KATHRYN F. (1942) 'An experiment in the training of low-grade defectives', *American Journal of Mental Deficiency*, **47**, 195-202.
- DOLL, E. A. (1937) 'The inheritance of social competence', *Journal of Heredity*, **128**.
- DOLL, E. A. (1939) 'Growth studies in social competence', *Proceedings of the American Association on Mental Deficiency*, **44**, 90-6.
- DOLL, E. A. (1940) 'Annotated bibliography on the Vineland Social Maturity Scale', *Journal of Consulting Psychology*, **4**, 123-32.
- DOLL, E. A. (1953) *Measurement of social competence*. Educational Test Bureau, Educ. Publishers, Inc.
- DOLL, E. A., and JAMES, J. BROOKS (1942) 'The therapeutic uses the Vineland Social Maturity Scale in its application to adult prisoners', *Journal of Criminal Psychopathology*, **3**, 347-58.
- DOLL, E. A., and FITCH, KATHRYN A. (1939) 'Social competence of juvenile delinquents', *Journal of Criminal Law and Criminology*, **30**, 52-67.
- DOLL, E. A., and LONGWELL, S. GERALDINE (1937) 'Social competence of the feeble-minded under extra-institutional care', *Psychiatric Quarterly*, **11**, 450-64.
- DOLL, E. A., and MCKAY, B. ELIZABETH (1937) 'The social competence of special class children', *Journal of Educational Research*, **31**, 90-106.
- DUNSDON, M. I. (1947) 'Notes on the intellectual and social capacities of a group of young delinquents', *British Journal of Psychology*, **38**, 2, 62-6.
- GAMBARO, PROVIDENCE K. (1944) 'Analysis of the Vineland Social Maturity Scale', *American Journal of Mental Deficiency*, **48**, 359-63.
- GESELL, A. (1940) *The first five years of life*. London, Methuen.
- GESELL, A., and ILG, F. L. (1946) *The child from five to ten*. Hamish Hamilton.
- GOLDFARB, WILLIAM (1943) 'The effects of early institutional care on adolescent personality', *Journal of Experimental Education*, **12**, 106-29.

- GOLDFARB, WILLIAM (1945) 'Effects of psychological deprivation in infancy and subsequent stimulation', *American Journal of Psychiatry*, **102**, 18-33.
- GOODMAN, ALICE W. (1940) 'Social competence of institutionalised young female epileptics', *American Journal of Mental Deficiency*, **45**, 219-27.
- GOODMAN, ALICE W. (1941) 'Deviation of social competence in selected epileptics', *American Journal of Orthopsychiatry*, **11**, 104-10.
- GOTTESGEN, M. C. (1957) 'The use of the Vineland Social Maturity Scale in the planning of an educational programme for non-institutionalised low-grade mentally deficient children', *Dissertation Abstracts*, **17**.
- ISAACS, S. (1933) *Social development in young children*. Routledge and Kegan Paul.
- KELLY, ELIZABETH M. (1941) 'A program to develop social maturity in the orthopedic child', *Exceptional Children*, **8**, 75-9.
- KLUCKHOHN, C., and MURRAY, H. A. (1949) *Personality in nature, society and culture*. Cape.
- LEVY, D. (1943) *Maternal over-protection*. Columbia University Press.
- LURIE, LOUIS A. *et. al.* (1941), 'Intelligence quotient and social quotient', *American Journal of Orthopsychiatry*, **11**, 111-17.
- LURIE, LOUIS A., ROSENTHAL, FLORENCE M. and OUTCALT, LOUISA C. (1942) 'Diagnostic and prognostic significance of the difference between the intelligence quotient and the social quotient', *American Journal of Orthopsychiatry*, **12**, 104-14.
- MASLOW, A. H. (1954) *Motivation and personality*. New York, Harper.
- MAXFIELD, K. E., and BUCHHOLZ, S. (1957) 'A social maturity scale for blind, preschool children'. New York, American Foundation for the Blind.
- MAXFIELD, K. E., and FJELD, HARRIET A. (1942) 'The social maturity of the visually handicapped pre-school child'. *Child Development*, **13**, 1-27.
- MCINTIRE, J. THOMAS (1942a) 'Babbitt Hospital: An experiment in the treatment of cerebral palsied children', *Training School Bulletin*, **39**, 158-63.

- MCINTIRE, J. THOMAS (1942b) 'Cerebral palsy treatment experiment', *Crippled Child*, **20**, 94-6.
- MESSINGER, VIRGINIA M. (1940) 'A longitudinal comparative study of nursery school and non-nursery school children,' unpublished Ph.D. thesis, State University of Iowa.
- MORALES, NOEMI (1942) 'The social competence of idiots', *American Journal of Mental Deficiency*, **47**, 209-14.
- MUENCH, GEORGE A. (1944) 'A follow-up of mental defectives after eighteen years', *Journal of Abnormal and Social Psychology*, **39**, 407-18.
- MYERS, S. O. (1948) 'Condoover Hall School for the Blind', *Educational Review*, **1**.
- MYKLEBUST, HELMER R., and BURCHARD, EDWARD M. L. (1945) 'A study of the effects of congenital and adventitious deafness on the intelligence, personality and social maturity of school children', *Journal of Educational Psychology*, **36**, 321-43.
- OVERSTREET, H. A. (1950) *The mature mind*. Victor Gollancz.
- POWELL, LEE, and LASLETT, H. R. (1941) 'A survey of the social development of the 10th, 11th and 12th grade pupils in a small high school', *Journal of Experimental Education*, **9**, 361-3.
- PRINGLE, M. L. KELLMER, and BOSSIO, V. (1958) 'A study of deprived children', *Vita Humana*, **1**, nos. 2 and 4; also in *Deprivation and education* (1965). Longmans.
- PRINGLE, M. L. KELLMER, and BOSSIO, V. (1960) 'Early prolonged separation and emotional maladjustment', *Journal of Child Psychology and Psychiatry*, **1**, 37-49; also in *Deprivation and education* (1965). Longmans.
- SPRINGER, N. NORTON (1941) 'The social competence of adolescent delinquents: a comparative study of white and Negro first offenders and recidivists', *Journal of Social Psychology*, **14**, 337-48.
- TOYNBEE, A. J. (1939) *A study of history. Vol. III: The growth of civilisations*. Oxford University Press.
- TROUP, EVELYN, and LESTER, OLIVE P. (1942) 'The social competence of identical twins', *Journal of Genetic Psychology*, **60**, 167-75.

- VERNON, P. E. (1938) *The assessment of psychological qualities by verbal methods*. Medical Research Council, Industrial Health Research Board.
- WATTS, FREDERICK P. (1941) 'A comparative clinical study of delinquent and non-delinquent Negro boys', *Journal of Negro Education*, **10**, 190-207.
- WERNER, E. (1957) 'Milieu differences in social competence', *Journal of Genetic Psychology*, **91**.
- WHITCOMB, MARIAN A. (1945) 'A comparison of social and intellectual levels of 100 high-grade adult mental defectives', *American Journal of Mental Deficiency*, **50**, 257-62.
- WILE, IRA S., and DAVIS, ROSE M. (1939) 'Behavior differentials of children with I.Q.s 120 and above and I.Q.s 79 and below, with some reference to socio-economic status', *American Journal of Orthopsychiatry*, **9**, 529-39.
- WILSON, MARGARET T. (1941a) 'Mental ages and social ages of normal and defective twins and siblings', *American Journal of Mental Deficiency*, **45**, 374-9.
- WILSON, MARGARET T. (1941b) 'Social competence of normal and defective twins', *American Journal of Orthopsychiatry*, **11**, 300-3.

A British Study of the Vineland Social Maturity Scale

The aims of the study outlined in this and the following chapter were twofold: to explore the validity and utility of the scale, both as a measure of social competence and as a clinical tool.

The validity of a scale depends upon its content, and upon the reliability and objectivity of its results. The content of Doll's scale consists of observable behaviour and the test is valid in so far as such behaviour is acceptable as a criterion of social competence. It is, however, possible that competence in social situations is little more than a complex of intellectual development, environmental opportunity and emotional adjustment. If this be so, then high positive correlations between social maturity and intelligence, educational level, socio-economic status and personal adjustment, would be expected. The validity of the scale may be assessed by an intensive study of sufficient cases for such overall relationships to be demonstrated, and by showing how far this scale is diagnostic in the case of children deviating markedly from the average. In this inquiry the relationship was explored between intelligence, sex, school adjustment, socio-economic level of the home, family position, friendship relations and cinema attendance on the one hand, and social competence as measured by the Vineland Scale on the other.

The plan of research

Because it was intended to make an intensive rather than extensive study, two age groups only were chosen, namely, 6-7 and 7-8 year-old children. In these two years transfer to the Junior School takes place and learning to read also begins to loom as a problem, particularly for the dull child; these factors -

though by no means a primary object of study – made these year groups seem more varied in their circumstances; the impact, if any, of school adjustment on social maturity and vice versa might be expected to emerge more clearly than in a younger or older group of children.

In all 250 children were studied, of whom 200 were chosen at random from school registers and 50 were Child Guidance cases. From among these, 40 were selected for a further supplementary inquiry, which involved a personal follow-up in the home and school environment. In this way, four subsamples were studied: (1) 200 'normal' children; (2) 50 'abnormal' children; (3) an intensively studied group of 30 'normal' children; and (4) an intensively studied group of 10 'abnormal' children. Each child in group (1) and (2) was tested and interviewed individually for a minimum of $1\frac{1}{2}$ –2 hours; in the case of groups (3) and (4), the study was continued until it was as complete as it could reasonably be.

To investigate whether the socio-economic and cultural background of a child influences his social development, the children were chosen from four areas differing widely in these respects. Of the 200 children comprising the main sample, 50 came from a rural area, 50 from a working class area, 50 from a professional area and 50 from a metropolitan area. Each group of 50 children contained 25 of each age group. Consequently although the children were randomly selected within each area group, the total sample cannot be regarded as random with regard to socio-economic status of the parents. The proportion of professional and clerical homes is larger and that of working-class homes smaller than would be expected from a purely random sampling of the population. A further 50 children, referred to a County Child Guidance Service, were included so that the responses of normal children in the four areas could be compared with those of children judged to be emotionally disturbed.

Doll claims a fairly high degree of correlation between intelligence and social competence. Therefore it was thought that interesting data might emerge from a detailed study of cases which showed a *marked discrepancy* between the two measures.

Thus three children from each age and area subgroup of 25 and from the Child Guidance samples were selected for special study: firstly, the child whose intelligence quotient and social quotient were nearest to the assumed means of the measures (100 points in each case); secondly, the child whose results showed the largest discrepancy in I.Q./S.Q. points, the I.Q. being the higher; thirdly, the child who showed the largest discrepancy in I.Q./S.Q. points but with the S.Q. being the higher measure. These formed the two intensively studied subsamples (mentioned above).

The measuring and recording instruments used

For the general inquiry the following tests and recording devices were used, administered in all cases by the author:

- (a) The 1937 revision of the Terman-Merrill Intelligence Scale, Form L.
- (b) Burt's Reading (Accuracy) Graded Vocabulary Test.
- (c) Doll's Vineland Social Maturity Scale.
- (d) Interview with a formalised recording schedule.
- (e) Ratings by teachers of the child's ability, attainment and various temperamental qualities.

For the intensively studied cases the following supplementary investigations were made:

- (f) Home visit.
- (g) Personal interview with the teacher.

It might, at first sight, seem desirable to have used a full range of attainment tests; but the children in this investigation were at a stage when reading is the most important aspect of their formal learning. Therefore the precedent of Burt (1945) and others (Hill, 1939; Taylor, 1946) was followed and a word recognition test alone used.

An interview schedule was drawn up to supplement the information obtained by the Vineland Scale and to assess other aspects of the child's development. The use of such a schedule has the advantage of ensuring an identical procedure, and the results

from one investigator at all events are likely to be comparable (Oldfield, 1941).

The use of the rating scale is less easy to defend. Past researches (Vernon, 1938) have shown that rating scales are crude and not very reliable instruments. They were used in this study for want of a more reliable and equally speedy method. However limited in validity and reliability, their use was justified by the way in which they shed light on a child's behaviour at school, in particular in those cases where behaviour and attitudes differed appreciably from the norm.

Analysis of the data

STATISTICAL ANALYSIS OF THE MAIN SAMPLE

The distribution of the reading, intelligence and social quotients in the four areas and the total sample is shown in Table 1.

TABLE 1. DISTRIBUTION OF THE READING, INTELLIGENCE AND SOCIAL QUOTIENTS IN THE FOUR AREAS AND TOTAL SAMPLE

		<i>Working Class</i>	<i>Professional Class</i>	<i>Rural Area</i>	<i>Metropolitan Area</i>	<i>Total</i>
Reading	Mean	72.2	94.2	94.3	79.9	85.1
Quotient	Stand. Dev.	18.4	22.1	21.8	25.5	23.8
Intell.	Mean	98.9	111.3	100.4	106.6	104.3
Quotient	Stand. Dev.	11.8	18.2	13.9	13.3	15.2
Social	Mean	100.7	103.0	105.5	101.9	102.8
Quotient	Stand. Dev.	10.2	9.0	6.5	10.1	9.6

Although a reading age of between four and five years has little meaning, since reading at that level is not effective for practical purposes, it was decided to choose four years and below as the level for non-readers and to accept any score above four years as showing that a child has made a start in the skill. In view of the mean I.Q. (104.3) the average reading quotient must be considered rather low. A combination of factors is likely to have produced this. If Schonell's view be accepted that children are not ready for formal reading until they have reached a mental

age of about six years (Schonell, 1945), then a number of children, particularly in the six to seven year group, were probably not mentally ready for reading proper. This low mean may also be a reflection of the rather lowered postwar standards of educational achievement. (See for example the Ministry of Education pamphlet No. 18, *Reading Ability*, Appendix.) There are considerable differences between the means of the four area groups. Of the six possible differences, four are significant (at or beyond the one per cent level of confidence).

In view of the unrepresentative nature of the sample, and the excess of children of superior ability a normal distribution of intelligence quotients could not be expected. Differences in ability in the four areas are clearly reflected in the mean I.Q.s; of the six possible differences four are statistically significant (at or beyond the one per cent level of confidence). As would be expected, children from professional homes show the highest ability, but at the same time, also the widest dispersion, of the four groups. This means that there is the least homogeneity in the group which contains the relatively greatest number of bright children.

Again, because of the criteria of selection, a normal distribution of social quotients might not have been expected. The differences in mean social quotients in the four areas are, however, not so marked, and analysis showed that none is significant. This is in accordance with Doll's claim that social maturity, as defined and measured by his scale, is independent of class or economic group.

The only adequate means of comparing a child's intellectual and social standing is to compute his standard scores on each scale (Garrett, 1947). The difference between these provides a comparable measure for different children of how they vary in social as compared with intellectual development. Wherever discrepancies between I.Q. and S.Q. are dealt with, they will be discussed in terms of the difference between these standard scores.

INTERCORRELATIONS BETWEEN THE MAJOR VARIABLES

Intercorrelations were calculated for each subsample, consisting of a different sex, age, school and area group and averaged by

Fisher's method for small samples (Fisher and Yates, 1943; Fisher, 1941). The values obtained for I.Q.-S.Q., I.Q.-R.Q. and R.Q.-S.Q. correlations are shown in Table 2.

TABLE 2. MEAN CORRELATIONS BETWEEN THE MAJOR VARIABLES FOR THE TOTAL SAMPLE

<i>Variables</i>	<i>r</i>
r I.Q.-S.Q.	+·48
r R.Q.-S.Q.	+·39
r R.Q.-I.Q.	+·60

To gain a closer estimate of the relative importance of the three measures as compared with each other, partial correlation coefficients were calculated from the zero order r s of the total sample (Table 3).

TABLE 3. PARTIAL CORRELATION COEFFICIENTS BETWEEN THE MAJOR VARIABLES IN THE TOTAL SAMPLE: $N=200$

<i>Variables</i>	<i>partial r</i>
r I.Q.-R.Q.	
S.Q. constant	+·45
r I.Q.-S.Q.	
R.Q. constant	+·34
r R.Q.-S.Q.	
I.Q. constant	+·14

These figures suggest that in the school situation general intelligence plays a greater part than it does in the more unstructured situation in which the child learns social competence. In neither situation does general mental ability play the sole part. The Vineland Scale gives a measure of how general intelligence is operating in the social field.

It is also worth noting that, at this age level at all events, the direct relationship between educational level, as reflected in reading and social competence, is small.

COMPARATIVE ANALYSIS OF THE CHILD GUIDANCE AND NORMAL SAMPLE

The analysis of the children who attended a Child Guidance Clinic revealed a number of interesting features. It was found that the greatest discrepancy, compared with the normal sample, was with regard to the social quotient. As can be seen from Table 4, Column 4, the discrepancy between the reading quotients is not proportionately as great as that between the intelligence quotients, though the level of reading attainment in the Child Guidance sample is significantly (5 per cent level) below that of the normal group of children. From the same table it can also be seen that the mean intelligence quotient of the Child Guidance sample is below both that of the population and of the selected normal sample. The difference between the two groups is in fact significant (one per cent level). However, the mean social quotient of the Child Guidance sample is most markedly below that of the normal group as well as below the assumed mean of 100 for the population as a whole.

The number of children whose raw S.Q.s fall below the mean is also much greater in the Child Guidance sample (Table 5). Among them 40 per cent have S.Q.s which are one or more standard deviations below the mean, whereas in the normal sample there are only 9 per cent.

TABLE 4. MEAN READING, INTELLIGENCE AND SOCIAL QUOTIENTS IN THE CHILD GUIDANCE AND NORMAL SAMPLE

		<i>Child Guidance</i> N=50	<i>Normal</i> N=200	<i>Difference</i>	<i>Critical ratio</i>
Reading Quotient	Mean	76.0	85.1	9.1	2.27
	Stand. Dev.	27.0	23.8		
Intell. Quotient	Mean	96.9	104.3	7.4	2.65
	Stand. Dev.	18.9	15.2		
Social Quotient	Mean	91.6	102.8	11.2	6.16
	Stand. Dev.	11.9	9.6		

It is relevant here to recall that although there were significant differences in I.Q. and R.Q. in the four subgroups of the normal sample, no such difference was found in mean S.Q. Thus the

TABLE 5. DISTRIBUTION OF S.Q.'S IN THE CHILD GUIDANCE AND NORMAL SAMPLE

S.Q.	Child Guidance		Normal	
	N	%	N	%
50-69	2	4	—	—
70-79	6	12	1	$\frac{1}{2}$
80-89	12	24	17	$8\frac{1}{2}$
90-109	24	48	137	$68\frac{1}{2}$
110-119	6	12	39	$19\frac{1}{2}$
120-129	—	—	4	2
130-149	—	—	2	1

wide discrepancy between normal and maladjusted groups in mean S.Q. suggests that of the three measures, social quotient is the best discriminator between normal and 'abnormal' children. Since invariably a number of children find their way into Child Guidance Clinics whose behaviour is not markedly abnormal, the social quotient mean might well have been even lower (and thus diagnostically more significant) had all the children in fact been seriously maladjusted.

An analysis of the differences between I.Q. and S.Q. scores (Table 6) shows that there are twice as many children with a difference score of -1 or more in the Child Guidance sample, as in the normal group; conversely more than twice as many children in the normal sample have a difference score of $+1$ or

TABLE 6. DISCREPANCIES IN TERMS OF STANDARD SCORES BETWEEN I.Q. AND S.Q. IN THE CHILD GUIDANCE AND NORMAL SAMPLE

	S.Q. above I.Q.			S.Q. below I.Q.			
	+3	+2	+1	0	-1	-2	-3
Discrepancy*							
% Normal	$\frac{1}{2}$	$2\frac{1}{2}$	$14\frac{1}{2}$	$63\frac{1}{2}$	13	$4\frac{1}{2}$	$1\frac{1}{2}$
% Child Guidance	—	—	8	54	24	10	4

* The discrepancies in the top line of the table indicate the ordinates dividing the various sections of the distribution, i.e. in the column headed 0 are put all cases between \pm sigma unit and 0; in the column headed $+1$ those in which the difference is 1 unit and less than 2 and so on. The positive deviations indicate a higher standing on S.Q. than I.Q., the negative a lower standing.

more than in the Child Guidance sample. This suggests a marked degree of under-functioning in social competence among problem children. Social maturity, it seems, is the first casualty of emotional disturbance.

ANALYSIS OF I.Q./S.Q. DISCREPANCIES

The relative incidence of I.Q./S.Q. discrepancies at various levels of intelligence was analysed in the total sample. It was found that dull children show a tendency towards relative acceleration in social competence, while children of average or superior intelligence tend to be relatively retarded in social competence. Some regression towards the mean would be expected in any case, that is to say, children with high I.Q. would be expected to have a lower mean S.Q. and vice versa.

In addition, however, it was found that where these tendencies were either extreme or reversed, problem behaviour also occurred. Thus the evidence of the intensively studied cases (selected, it will be remembered, on the grounds of most marked I.Q.-S.Q. discrepancy) suggests that dull children who are markedly advanced in social competence come from psychologically unfavourable homes. Precocious development of social competence brought about by excessive demands and pressure, was invariably accompanied by symptoms of emotional maladjustment such as apathy, fearfulness, stealing and wandering. On the other hand, if dull children showed comparative social retardation instead of the expected S.Q. superiority, this was also accompanied by problem behaviour. Similarly, children of average or superior intelligence whose level of social competence was markedly below that of their intelligence, were likely to show behaviour problems.

Thus for practical purposes a discrepancy of one or more standard units between I.Q./S.Q. level - whether such a discrepancy is positive or negative - is *prima facie* a case for further clinical investigation. Our evidence suggests that marked acceleration or retardation of social competence is due largely to the influence of the home and of family attitudes. Both extremes are found in homes which must be regarded as psychologically unfavourable. The scale is a means of discovering the effects of

specific factors on a specific child and it throws into relief the relationship – so well known to Child Guidance workers – between intelligence, social competence, family relationships and emotional disturbance.

The problems emerging from the case study material may be summarised in this way: there is strong evidence that children whose development of social maturity is relatively low show some degree of emotional maladjustment, educational retardation or both. Of the ten cases chosen from the normal sample five children showed some emotional maladjustment and four were educationally retarded. Of the six Child Guidance cases, three were not working up to capacity in school and all were emotionally severely disturbed. Possibly this is putting the cart before the horse since relative social immaturity may be just another aspect of emotional difficulties. In fact only in three cases could it be assumed that overprotection of the child resulted in such gross social immaturity as to be a symptom of emotional disturbance. There was no evidence in our data that failure in social maturity resulted directly from educational pressure.¹

Similarly, in cases of social precocity relative to I.Q. level, our evidence indicates that such children exhibit symptoms of emotional disturbance at home and in school. With one exception, all the children who were intensively studied because of S.Q. superiority were stated to display various forms of problem behaviour. It is suggestive that in the majority of cases the mother and teacher gave opposed answers regarding the child's willingness to help; as might be expected it was found that the child who was most 'helpful' and independent at home, behaved in school in an immature, dependent or listless manner, probably as a reaction against the pressures at home. Thus the impression gained from this intensively studied group is – in common with the finding of other investigators (Bodman, 1946; Dunsdon, 1947) – that precocity of social development due to environ-

¹ The schools from which these children came, could not be said to exert a heavy pressure on their pupils though one had high academic standards. It is conceivable that the kind of preparatory school which insists, for example, on beginning Latin at seven or eight, and bends all its efforts to a high standard of examination success, might interfere seriously with the social development of its pupils.

mental pressure, leads sooner or later to a breakdown in behaviour.

It seems then, that marked discrepancies between social competence and intellectual development indicate environmental opportunities – whether the child is pressed beyond capacity or held back by over-protection. Extreme environmental conditions produce extreme cases; to illustrate this, two of the individually studied cases will be briefly described: one child showing marked S.Q. superiority and one with marked I.Q. superiority, both from psychologically unfavourable homes, and both showing symptoms of emotional disturbance.

Freda, aged 7 years 2 months, I.Q. 97; S.Q. 130; R.Q. 63. The eldest of six children who is often kept at home to 'mind' the younger ones. The family is well known to the Welfare Department as the father has left home several times. He is an unskilled labourer and the mother has a part-time job in a local factory. Neither parent has visited the school. Freda's clothes are smelly, torn and very inadequate for the time of year. Her teacher described her as babyish and lacking in initiative but very lovable; she cries easily and stammers when worried. At home, on the other hand, she is said to be 'lazy and stubborn'. However, it became apparent that she is given little time for playing but is expected to look after the smaller children and help with household chores. Having too much responsibility thrust upon her with little affection or even recognition for her efforts, the child has reacted with sullen passivity. For this she is slapped a good deal, and her stammer is also a source of annoyance to her mother.

Janet, aged 6 years 10 months, I.Q. 140; S.Q. 100; R.Q. 140. The gifted only child of elderly, artistic parents. Though fond of her, both were reserved, undemonstrative people with many outside interests which took them away from home a good deal; the grandmother and aunt, both living in the same house, were effusive and gushing, which made the parents appear even more unloving to the child. She was unsure of their affection and craving for it, while they were puzzled by her behaviour and unaware of its underlying meaning. She was solitary, dreamy and slow, given to violent temper tantrums and had numerous fears; in

school she demanded too much attention and tended to be spiteful to other children.

Interpretation of results

Doll's claim that his scale does not show significant sex differences was confirmed in our sample, the S.Q.s of boys and girls being almost identical. Similarly, in contrast to the intelligence and educational measures, the Vineland Scale does not reveal differences between the means for the different social areas. In view of the different environmental opportunities available in the four selected areas this is a significant finding, which is in line with Doll's claim that social maturity as he defines it, is independent of social or economic group. That within a normal group of children the same mean S.Q. is reached in spite of differences in intelligence and social background suggests that an average level of social competence may be achieved in different ways.

General intelligence reflects social group not merely as a function of the environment but because economically successful parents, themselves usually of more than average intelligence, tend to have children of more than average intelligence. Social maturity on the other hand, though in some ways related to innate ability and environmental opportunity, appears to be in general unrelated to the kind of difference in either. Alternatively, one could argue that differing environments may in different ways offer those opportunities for social development which a child needs; so that within the normal range of mental ability at all events, children of very different levels of I.Q. will achieve a level of social competence compatible with their chronological age.

Thus our results suggest that at this age level diverse environments seem to offer those opportunities that lead to an average development of social competence. It may also mean that at this comparatively early age social expectations in varying environments are not sufficiently differentiated, so that the demands made on the child are more closely similar from area to area and class to class than they will be at a later stage. Although there were no differences in social quotient between the two age groups, the social age levels were different. This indicates that

within this age range, at any rate, the scale as a whole is discriminatory and measures development.

The statistical and clinical study has supplied strong inferential evidence that social competence is a distinctive trait measurable in its own right. From the correlational analysis of the I.Q./S.Q. relationship and from the evidence provided by the investigation of the discrepancies between the two measures, it looks as though the connection between intelligence and social growth is not a linear one. There are signs that, apart altogether from phenomena to be attributed to regression, there is a tendency for children of subnormal ability to be accelerated and for children of high ability to be retarded socially. The data gathered are insufficient to determine this with certainty; but if it were so it would be in accordance with a theory that looks on social maturity as a composite function of many influences both personal and environmental.

Moreover, as emerged from the comparison of different socio-economic groups and from the intensive case studies, it seems likely that the way in which the various factors concerned affect a given child is idiosyncratic to the cultural situation and to the unique personal endowments of each individual child. The child who, compared with his mental level, is markedly advanced or retarded in social competence, is likely also to be emotionally disturbed. Nevertheless, although this is usually true, there is an important qualification. In general, a marked positive discrepancy is accompanied by problem behaviour; but a marked negative discrepancy may merely indicate an overprotected child who, although he could possibly become a problem later, is not one at present.

The relationship of social maturity to emotional stability emerges to some extent from the comparative analysis of the Child Guidance and normal samples and to some extent from the intensive clinical studies. The social maturity level of the problem group as a whole was significantly lower than that of the normal sample, which suggests that emotional disturbance has an inhibiting or retarding influence on social growth. On the other hand, there is also evidence from the intensive case studies that a precociously high level of social competence results in, or at

least goes hand in hand with, emotional difficulties. Thus it would seem that the closest relationship between emotional stability and social maturity, as measured by the Vineland Scale, exists at the extremes.

The data show that the majority of homes are unlikely to produce undue precocity or retardation of social maturation. However, the individual case studies seem to suggest that in cases of marked precocity or retardation the home influence is one of the most important causative factors in the promotion of an optimum level of social competence.

Conclusions

Though it is at present a rather rough tool, Doll's Vineland Social Maturity Scale is an instrument which makes possible the measurement of one aspect of personality. It presents a courageous first attack in a field where concepts are misty and ill-defined. Thus it marks the beginning of the attempt to measure the social aspects of human growth; so far available knowledge, even of stages and norms of social development, is in no way comparable to that available in the cognitive field. The present study aimed at exploring the practical utility of an admittedly imperfect instrument. It has pointed up the need for British adaptation and then restandardisation.

Inevitably a first inquiry of this kind raises more problems than it solves; whether the level of social competence can be raised for some or all children by deliberate training; whether it may need to be lowered for others and if so by what methods; whether such raising or lowering is desirable and lasting in its long-term effects; whether acceleration and retardation in social development has a different meaning and significance at different ages; whether it might be possible to establish borderlines for 'social backwardness' and for 'social defect'; these and many other questions must wait upon the results of further research. But the solution of these problems may well be as important for our knowledge of social development as the experimental work of the last three decades has been for our knowledge of the maturation of intellectual growth.

References

- BIRCH, L. B. (1949) 'The remedial treatment of reading disability', *Educational Review*, **1**, 107-18.
- BODMAN, F. (1946) 'Social maturity test', *Journal of Mental Science*, **92**, 532-41.
- BURT, C. (1945) 'The education of illiterate adults', *British Journal of Educational Psychology*, **15**, 1-27.
- DUNSDON, M. I. (1947) 'Notes on the intellectual and social capacities of a group of young delinquents', *British Journal of Psychiatry*, **38**, pt. 2.
- FISHER, R. A. (1941) *Statistical methods for research workers*. 8th edn. Oliver & Boyd.
- FISHER, R. A., and YATES, F. (1943) *Statistical tables for biological, agricultural and medical research*. Edinburgh, Oliver & Boyd.
- GARRETT, H. E. (1947) *Statistics in psychology and education*. 3rd edn. Longmans.
- HAMMOND, D. (1948) 'Attainment in reading'. *The Times Educational Supplement*, 14 August 1948.
- HILL, M. E. (1939) *The education of backward children*. Harrap.
- LINDQUIST, E. F. (1940) *Statistical analysis in educational research*. Cambridge, Mass., The Riverside Press.
- OLDFIELD, R. C. (1941) *The psychology of the interview*. Methuen.
- SCHONELL, F. J. (1945) *The psychology and teaching of reading*. Edinburgh, Oliver & Boyd.
- SNEDECOR, G. W. (1940) *Statistical methods*. 3rd edn. Iowa State College Press.
- TAYLOR, E. A. (1946) *Experiments with a backward class*. Methuen.
- VERNON, P. F. (1938) *The assessment of psychological qualities by verbal methods*. Medical Research Council, Industrial Health Research Board.

Discrepancies between Intelligence and Social Competence¹

As was discussed in the previous chapter (p. 31) a comparison was made between the normal sample and fifty cases (Child Guidance sample) referred to a Child Guidance Clinic because of behaviour difficulties. The social maturity level of the problem group was found to be significantly lower than that of the normal sample. This suggested that there might be some association between social development and emotional disturbance and led to a detailed clinical study of all those cases among the 250 children showing a marked discrepancy between social and intelligence quotients. This chapter deals with the relative incidence of such discrepancies and their significance.

The subjects

Doll claims a fairly high degree of correlation between intelligence and social competence. Therefore it was thought that interesting data might emerge from a detailed study of all cases which showed a marked discrepancy² between the two measures. Thus three children from each age and area subgroup of twenty-five, and from the Child Guidance samples, were selected for special study:

- (a) the child whose I.Q. and S.Q. were nearest to the assumed means of the measures (100 points in each case);

¹ Written in collaboration with W. D. Wall.

² It might be considered that – to allow for differences at the extremes – discrepancies should have been calculated from the regression of one measure upon another which would yield a predicted score of x from observed y . This could then have been compared with the observed value of x and the discrepancy between the two used as a criterion. Apart, however, from the fact that this could not have been done until all the measures were complete, neither the size of the sample nor the composition warrant such statistical sophistication.

- (b) the child whose results showed the largest discrepancy in I.Q./S.Q. (standardised) points, the I.Q. being the higher;
- (c) the child who showed the largest discrepancy in I.Q./S.Q. (standardised) points, the S.Q. being the higher.

In this way, the normal samples yielded twelve boys and twelve girls and the Child Guidance sample a further six, making a total of thirty. To these a further ten were added for a variety of reasons; these included marked I.Q./S.Q. discrepancy or the fact that another sibling was being investigated so that a broader picture was likely to emerge from a study of two children in one family. This total of forty children formed the two intensively studied sub-samples and are the subjects of the study reported in this chapter.

The method

SELECTION PROCEDURE

The ideal way in which to choose the intensive sample would have been to convert the I.Q.s and S.Q.s into units standardised on the mean and sigma of the obtained distributions. However, selection had to be made while the interviewing of the main group was being carried on, and thus before the means and standard deviations of the tests were known. Since the cases for intensive study were chosen to be either very close to the average or very extreme, only one case proved to be wrongly selected when I.Q./S.Q. scores were subsequently converted into standardised units.

Clearly in using two tests with approximately normal distributions and a correlation less than unity, a more or less symmetrical regression towards the mean at each end would be expected: children with high I.Q.s would be expected on the average to have a lower S.Q. and children with low I.Q.s would be expected to have a higher mean S.Q. The correlation between the two measures was 0.48 which represents a measure of commonality but also suggests that each is measuring something independent. Some of the lack of correlation may be due to test error or fluctuation in the function measured and similar irrelevant causes. Both tests are, however, quite well standardised

and reliable. Hence the discrepancy level chosen (a minimum of one sigma) though probably somewhat different in its meaning at the extremes of the distribution is sufficiently large to be critical and could hardly be a mere accident of the distributions. For example, in group (c) (see page 41) seven out of eleven children have I.Q.s within ± 0.5 of the theoretical I.Q. mean, and of these five show a discrepancy score of above ± 1.5 .

Any attempt to use discrepancy between the two measures as a clinical pointer in groups comprising a wide range will, of course, depend upon estimates of means and standard deviations from unselected populations. There is, however, evidence that the variability both of I.Q. (as measured by the 1937 Revised Stanford-Binet Test) and of S.Q. (as measured by the Vineland Scale) differs according to age (Terman and Merrill, 1937; Doll, 1953). This variability may reflect genuine differences in developmental rates or may merely be a result of irregularities in the construction of the tests, including anomalies of sampling. It would have been possible, within the limited age range of our data, to attempt to estimate a mean and standard deviation for the population as a whole by weighting each subgroup according to its true representation. Such accuracy of treatment of relatively small samples would, however, be rather pedantic. Moreover, it would merely tend to obscure age differences which, for whatever reasons, do appear in both tests to a marked degree. Consequently, the mean and standard deviation of our group of 200 cases, uncorrected for sampling bias, were accepted as the best available estimates.

To compare each child's standing on the two measures (I.Q. and S.Q.) a standard or z score was computed (Garrett, 1947). The difference between these provides a statistically equivalent measure for different children of how they vary in social as compared with intellectual development. For ease of computation of z scores the raw means of the two distributions have been rounded to the nearest whole number, 103 for S.Q. and 104 for I.Q. The raw standard deviation of I.Q. has been taken as 15 points and that of S.Q. as 10 points. Plus and minus signs have been assigned to the Difference Scores according to whether S.Q. was higher than I.Q. (+D.S.) or I.Q. higher than S.Q. (-D.S.).

Hence discrepancies between S.Q. and I.Q. are dealt with in terms of the difference between these standard scores. Here, it must be recalled, that the distribution of I.Q.s was not – for reasons connected with the sampling by socio-economic environment – strictly normal. There was some curtailment at the lower end and the proportion of high I.Q.s was larger than would be expected. However, the distribution was reasonably symmetrical about the obtained mean.

MEASURING AND RECORDING INSTRUMENTS

The following tests and measuring devices were used, each of them being administered individually as appropriate to child, parent or teacher, by one of the authors.

- i. The 1937 revision of the Terman-Merrill Intelligence Scale, Form L.
- ii. Burt's Reading (Accuracy) Graded Vocabulary Test
- iii. Doll's Vineland Social Maturity Scale
- iv. Interview with a formalised recording schedule, designed to explore the child's interests, spare time activities, family and friendship relations, etc.
- v. Ratings by teachers of the child's ability, attainment and various temperamental qualities.

For the Intensive Sample, the following supplementary investigations were made:

- vi. Home visit, interviewing where possible both parents
- vii. Interview with teachers.

While it would have been desirable to use a full range of attainment tests, time did not permit this. However, the children were at a stage when reading is the most important aspect of their formal learning.

Results

DISCREPANCY DISTRIBUTIONS IN THE NORMAL, CHILD GUIDANCE AND INTENSIVELY STUDIED SAMPLES

The detailed statistical analysis and tables are given in the appendix (p. 89). Here only the general conclusions are presented.

TABLE 7. CASES OF I.Q. SUPERIORITY

No.	Name	I.Q.	S.Q.	I.Q.-S.Q. discrepancy	R.Q.	No. of sibs	Outstanding personality traits	Area
1	Rita	136	99	-2.4	136	2	Cheerful, friendly; self-confident, independent; assertive with contemporaries	Metropolitan
2	Allan	145	89	-4.2	83	1	Lively responsive and cheerful; easily distracted; has few friends	Metropolitan
2A	†Bea, sister of Allan	91	105	+1.1	98	1	Sullen and resentful when cannot dominate or if corrected; 'a charmer' if is centre of attention; spoilt, self-willed and spiteful	Metropolitan
3	Martin	123	96	-2.0	60	1	Sensible, responsive; gets easily discouraged and lacks confidence	Metropolitan
4	Alice	172	100	-4.8	140	None	Resentful with 'chip on her shoulder'; restless, excitable, lacking in confidence; solitary and spiteful to contemporaries; craves affection, many nervous mannerisms including tics and body twitches; has many fears and sleeps little	Professional
5	George	129	103	-1.7	147	4	Calm, poised, sensible; stable and resourceful; good mixer and a leader	Rural
6	John	151	106	-2.8	155	None	Cheerful, poised, sensitive; sociable and a leader; lovable but until recently very dependent on adults	Professional

* Father's occupation is noted first and then mother's indicating whether she works

FROM NORMAL SAMPLE (N=10)

<i>Parental occupation.*</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Stone-mason	Dingy fourth-floor flat	Matrimonial difficulties, parents have separated twice. Culturally quite unstimulating	Easy-going acceptance. Neither aware of nor interested in girl's good ability
Technician Ex-nurse	Semi-detached council house sparsely furnished	Easy going. Little cultural stimulation. Bossed by sister	Quite affectionate and accepting; likes school, thinks he is average ability and 'ordinary'
Technician Ex-nurse	Semi-detached council house sparsely furnished	Dominates her brother and is father's pet	Idolised by father, indulged and spoilt by mother
Pastry cook Part-time char	Small flat poorly furnished	Nothing outstanding. Culturally very unstimulating, both parents have limited power of self-expression	Protective but little insight into child's needs
Scientist Teacher (full-time)	Large, detached house, tastefully and expensively furnished	Mother inhibited, unimaginative and insensitive; father spontaneous and creative. Culturally rich and stimulating	Mother undemonstrative almost to the point of rejection; father affectionate and has good relations with child
Solicitor Ex-nurse	Very good, detached house	Unfavourable towards this child who, at home, is solitary, unhappy and withdrawn, 'reads always'	Odd-man-out, mother rejects him; and father impatient, prefers girls
Scientist Teacher (full-time)	Excellent, pleasant house and large garden; tastefully decorated	Very good but until three months ago boy lived with and brought up by grandmother as father contracted T.B. six years ago and still unable to work. Two years ago mother also had prolonged illness	Spoilt by adoring grandmother. Parents most affectionate, sensible and encourage him now to become independent

* full- or part-time.

† Not selected for this group but seen out of interest.

Table 7

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs</i>	<i>Outstanding personality traits</i>	<i>Area</i>
7	Ann	114	87	-2.4	61	None	Excitable, cheerful, confident; craves affection and attention, cannot take failure or rebuke; quite a few fears	Professional
8	Ian	123	112	-0.4	92	None	Sensitive, diffident and lacking in confidence; fidgety and chews collar; little interest in school work and easily gives up	Rural
9	Len	133	112	-0.4	119	1	Happy, cheerful, confident, self-willed and knows how to get his way	Working class
10	Arthur	134	92	-3.2	92	2	Lively, imaginative, confident; sociable and popular; highly strung and sensitive; sets himself high standards; slightly crippled and limps	Professional

The analysis of I.Q.-S.Q. discrepancies in the four areas shows some interesting displacements of social quotient. In the rural and working class area samples there are more children with S.Q.s higher than I.Q.s; the position is reversed in the metropolitan and professional area groups where there are more children with S.Q.s lower than their I.Q.s. Dull children generally showed a marked tendency towards relative acceleration in social competence whereas those of superior ability appeared to be relatively retarded in social competence. However, among problem children these tendencies were either reversed or shown to an extreme degree. Thus in the Child Guidance Sample, none of the dull children showed high S.Q.s whereas nearly half of the dull children in the normal sample did so. Among those of

(continued)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Dentist Receptionist	Beautiful but not 'lived in'	Happy except that father, since return from war, has tried to modify maternal overindulgence	Mother idolises and spoils her; father affectionate but makes sensible demands
Engineer	Very good - live in country	Mother tense, showing many nervous mannerisms; finds boy difficult and tends to give in; father away from home good deal, spoils him when there	Overindulgent but very affectionate
Greengrocer Helps with accounts	Semi-detached council house well-kept	Mother gentle and dependent and very much missed father's support during war; found boy difficult to manage and was inconsistent and indulgent	Mother overprotective, father sensible. Both very fond of boy
Company Secretary	Excellent, spacious expensively furnished house; resident maid and handyman	Excellent and harmonious; understanding of and respect for children's personalities; understandably have tried to overprotect him because of physical frailty and it is he who drives himself hard to achieve success	Excellent, devoted and sensible

average intelligence, more children were socially retarded in the Child Guidance than in the normal group.

THE INTENSIVELY STUDIED CASES

Here again, statistical details are shown and discussed in the appendix. The test results and history of each child in the three groups of intensively studied cases are summarised on Tables 7-12. The descriptions of the children's outstanding personality traits are a summary arrived at by combining the assessments made by the class teachers and by one of the writers (M.L.K.P.) during the psychological interviews, and also incorporate the comments elucidated from the parents during the home visit. While the social quotients are based on information obtained

TABLE 8. CASES OF I.Q. SUPERIORITY

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs</i>	<i>Outstanding personality traits</i>	<i>Area</i>
11	Dick	142	100	-2.8	143	1	Referred by school for refusal to speak. Tense, anxious and shows many nervous symptoms, including continuous finger snapping. Extreme lack of confidence, spoke monosyllabically and very softly. Solitary, never laughs; timid, overdependent yet also disobedient and stubborn	Working class
12	Fay	83	69	-2.1	94	None	Referred by school for excessive timidity and now refuses to go to school. Very insecure; inhibited and lacking in confidence; solitary, very neat and careful; full of fears and stubborn	Professional
13	Mary	98	68	-3.3	67	8	Referred by school for being excessively timid and terrified most of the time; hardly ever speaks and very impoverished vocabulary; never smiles, does not mix and seems extremely dependent	Rural
14	Bert	122	92	-2.4	70	2	Referred by mother as unmanageable. Cheerful, confident, lively and responsive; boisterous but affectionate; good mixer and no trouble at school	Professional

IN CHILD GUIDANCE SAMPLE ($N=6$)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Craftsman (Deceased)	Bungalow Overcrowded as shared with granny and two maternal sisters	Father killed in action and mother has not got over it; is shy, gentle and domesti- cated; puzzled and hurt by boy's rejection of affection and by his self-sufficiency. Home lacks any male influence	Mother overindulgent and overaffectionate as boy is so like his father
Builder, own business	Very good. Large well furnished house	Mother nervous, over- anxious, married late and never went to work; still leans heavily on own mother whom she consults daily. Gives in to father to avoid scenes	Overindulged by both; mother has perpetuated relation- ship of extreme over- dependency with her own mother
Farm labourer	Very poor, tum- ble-down tiny cottage, dirty and utterly comfortless	Most unfavourable especially for a sensitive child. Father violent, irritable and ill- treats wife and children. Been in prison several times. Mother dull and worn out by adverse conditions. Child spent first two years of life in hospital with a wasting disease	Mother quite fond of her and has given her more attention than the other children. Father has no interest in family
Business executive	Good but boy not allowed to play in garden or to make mess in the house	Very unfavourable; mother unstable hysteric, has had two major breakdowns within last four years. Rest of family grown up; she wants to di- vorce husband for cruelty and get boy 'removed' to a Home or school. Had not a good word to say for husband or son. Father invalided out of R.A.F. after crash and is moody and changeable	Mother rejects boy completely and father takes only a fitful interest in him

Table 8

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs</i>	<i>Outstanding personality traits</i>	<i>Area</i>
15	Helen	152	103	-3.2	156	1	Referred by father for aggressiveness and lack of self-control. Vivacious with tendency to being overconfident and impulsive; highly strung, erratic, easily hurt; shows off, wants to be centre of attention and very domineering with other children	Working class
16	Brian	106	82	-2.3	94	1	Referred by father for 'excitability', laziness and irresponsibility. Timid and dreamy with occasional outburst of aggression and viciousness towards other children	Rural

from the child, this was checked with the parents for every one of the intensively studied cases. Among the thirty-nine cases there were only three where the social quotient differed by more than 3 points when the parent acted as informant instead of the child (Case Nos. 14, 21 and 26 by 4, 8 and 5 points respectively); it is doubtful whether the mothers in these cases can be considered to be more reliable than their children since they were quite unstable women. This close correspondence suggests that even young children (i.e. aged between six and eight years) and those who are socially immature can be reliable informants when the interview is conducted by a trained psychologist. Only one out of the thirty-nine families refused to be interviewed by not replying to several letters and one personal call (No. 27). The descriptions and assessments of the home background are based on the information given and impressions obtained during the home visit, which lasted on an average for an hour and a half;

(continued)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Clergyman Mother helps him	Large pleasant house, well looked after	Inconsistent: mother intelligent, educated but very excitable and voluble; father extremely inhibited quiet and hypercritical of mother's handling of the girl, while he sets unrealistically high standards for her	Both keenly interested in child's welfare but basic disagreement on methods of upbringing
Clergyman Mother helps him	Large pleasant and comfortable house	Inconsistent: mother gentle and feels inferior to 'brainy and forceful' husband; he is overbearing and has rejected boy because of his lack of drive and irresponsibility. Has unrealistically high standards and little insight, quite unwilling to make allowances for child's early ill-health and prolonged hospitalisations	Father rejecting and mother has given up

in quite a few cases both parents were interviewed. Corroborative, and in some cases, additional information was often supplied by the school.

CASES OF I.Q. SUPERIORITY FROM THE NORMAL SAMPLE

All homes show a number of common features; materially they are good to very superior; there are no broken homes; culturally the majority are very superior. However, three homes (Nos. 1, 2 and 3 on Table 7) might be described as lacking in intellectual stimulation and standards which would be both an encouragement and a challenge to a gifted child (No. 2A provides an interesting contrast to her brother). The two children who have psychologically unfavourable homes (Nos. 4 and 5) show marked emotional difficulties, one at school and the other at home. Five children (Nos. 6 to 10) are, or have in the past been, overprotected and overindulged, for a variety of reasons.

TABLE 9. CASES OF S.Q. SUPERIORITY

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs.</i>	<i>Outstanding personality traits</i>	<i>Area</i>
17	Don	73	91	+1.3	52	7	Inarticulate, unresponsive, lacks confidence	Metro- politan
18	Mick	93	119	+2.4	65	4	Slow, apathetic, timid, restless, fearful	Rural
19	Mandy	78	101	+1.3	89	4	Slow, easily gives up, shows off, bossy	Rural
20	Carl	78	97	+1.1	69	6	Unforthcoming, anxious and tense; solitary unusually serious, lacks confidence	Working class
21	Amy	94	106	+1.0	83	4	Negative, passive and uninvolved. Mother describes her as nervy, fearful and destructive	Working class

FROM NORMAL SAMPLE (N=11)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Casual labourer	Fourth-floor flat of only two rooms, grimy, smelly slum	Father often unemployed and has been in prison; two boys in Borstal; mother stupid and slow but fond of family	Accepted
Slaughterer	Tiny condemned cottage - no indoor sanitation, no running water, extremely damp	As favourable as can be under appalling living conditions	Affectionate
Slaughterer	Tiny condemned cottage - no indoor sanitation, no running water, extremely damp	Mother appreciates her as she helps a lot with the two under two-year-olds	Affectionate
Semi-skilled factory worker	Three-bed-roomed council house - neat but poorly furnished.	Mother deserted family and the five children were pushed from pillar to post till father returned from the war and remarried. Step-mother looks after all his five children and has two of her own. Carl has only lived at home for nine months. Maternal warm woman	Stepmother very affectionate and understanding. Father very strict with the boys
Semi-skilled factory worker and mother part-time factory worker	New council house but very neglected and smelly with hardly any furniture	Father deserts family frequently but always returns, mother wishes he didn't as he drinks and is violent. She is slovenly, worn and irritable; shouts and hits the children	Little warmth or tolerance from either parent

Table 9

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs.</i>	<i>Outstanding personality traits</i>	<i>Area</i>
22	Paul	95	120	+2.3	65	1	Serious, poised, self-contained; solitary and disobedient in school but very self-reliant. Extremely helpful at home, proud and independent	Metro-politan
23	Chris	94	120	+2.5	106	3	Reliable, spontaneous, responsive, cheerful and well-adjusted	Rural
24	Jack	100	113	+1.4	92	3	Tired, listless; shy and sensitive. Mother worried as he is undemonstrative and secretive, staying out late and occasionally stealing money from her; very independent	Working class
25	Stan	92	115	+2.1	61	2	Restless, inarticulate; stolidly unresponsive; romances a lot about his wonderful (fantasy) home and pilfers from school	Working class
26	Pam	72	101	+2.0	55	2	Timid, unsmiling, lacking in confidence and spontaneity; craves affection. Described as 'hard and sly' by mother	Working class

(continued)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Father dead Mother secretary	Fourth-floor flat sparsely furnished but immaculate	Father a tribal chieftain, killed in war. Mother disowned by her family when she went to live with him. She is highly intelligent and gifted but has difficult life with two illegitimate children. High standards for boy whom she is bringing up as a pacifist, vegetarian and proud of being a Maori. Knows she is severe with him 'but he must become as perfect as his father'	Devoted to child but has extremely high standards
Builder	Large house, comfortably furnished	Mother died at brother's birth; went to residential nursery for three years; since then they have lived with paternal brother's family who treats them like his own; father frequently visits.	Loved and accepted
Machinist	Council house clean but bare	Mother has for years been suffering from spinal disease; her immobility and father's long and irregular hours curtail normal family life. J. 'is extremely helpful, more than his three sisters put together'	Normally affectionate
Bricklayer Factory hand part-time	Council house comfortless and neglected	Squalid, mother slut, father unstable and has deserted family twice; children are often left alone at night	Casually indifferent
Bricklayer Factory hand part-time	Council house comfortless and neglected	Mother dislikes female children; commented on Pam's helpfulness 'she is better than a maid' yet even this was said disparagingly	Rejected by both parents and exploited as household drudge

Table 9

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of sibs</i>	<i>Outstanding personality traits</i>	<i>Area</i>
27	Vera	97	130	+3.2	63	6	Craves attention and praise, affectionate in return; cries easily and has bad stammer	Working class

A feature found in all the homes without exception was the absence of any pressure for the children to become able to look after themselves; little positive encouragement seemed to be given to foster their 'social competence'. Good material conditions, adequate housing and small families are likely to offer part of the explanation. A tendency to overprotection, keeping the children too dependent because of high standards of personal hygiene and social relations, may also play a part.

CASES OF I.Q. SUPERIORITY FROM THE CHILD GUIDANCE SAMPLE

Materially all the homes but one (No. 13) are comfortably off and could afford the children intellectual and cultural stimulation (Table 8); however, none of them did so. Again, with the same exception, the families are small and in consequence there is no pressure for children to become socially competent.

From the psychological point of view, all the homes must be considered as being very unfavourable to normal emotional development; in two, the maternal attitude has been grossly overprotective (Nos. 11 and 12), two could be classed as broken homes although they are not so in the technical sense of the term (Nos. 13 and 14); and in the remaining two (Nos. 15 and 16) the parents have widely differing temperaments and standards of expectation, the fathers making unrealistically high demands on

(continued)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Casual labourer Factory hand part-time	Council house neglected	Only home where parents refused to be interviewed; information given by school. Father and mother desert family in turns; children have been in care. Father has been in prison. Vera, as the oldest, is exploited to look after the six younger children and often kept away from school	?

the children. In each of the three types of home there was, as it happened, one rather forceful, bright child and one of a retiring disposition and average ability.

CASES OF S.Q. SUPERIORITY FROM THE NORMAL SAMPLE

Again, there are a number of features common to nearly all the homes (Table 9): materially all but one home (No. 23) are poor or very poor, barely furnished and lacking in comfort, and the families are experiencing serious financial difficulties. Five children come from broken or incomplete families and two have been in care.

With two exceptions, the homes are culturally most unstimulating; ill-educated and ignorant themselves, the parents provide no intellectual encouragement, nor do they show any interest in the child's progress at school. The low level of reading achievement for the group as a whole is not unexpected in view of the home background.

Whereas in the previous group the average number of children per family was one, here it is four; there are no only children and eight families have four or more. Clearly the management of such families single-handed, and under unfavourable material conditions poses very considerable hardship and strain. It is worth noting that in six cases the mother's and teacher's ratings of the child's readiness to help are diametrically opposite, the child being said to be very helpful at home.

TABLE 10. CASES OF S.Q. SUPERIORITY

No.	Name	I.Q.	S.Q.	I.Q.-S.Q. discrepancy	R.Q.	No. of sibs	Outstanding personality traits	Area
28	Pat	79	95	+0.9	55	4	Referred by G.P. for bed wetting and severe nail biting. Solitary, disobedient and tearful at school. At home extremely helpful and obedient	Working class
29	David	89	110	+1.7	66	6	Referred by school for vicious temper outbursts. Lack of spontaneity and involvement; extremely assertive and disobedient at school and slightest frustration on reprimand results in violently dangerous behaviour. Terrorises children to get money and sweets. At home stepmother has never had this trouble, only 'looks like murder' if he can't have his way	Working class

From the psychological point of view, all but one home (No. 23) must be classed as very unfavourable. Though only one child (No. 26) is completely rejected, all the others have known or are still experiencing a good deal of insecurity and emotional deprivation. This is reflected in behaviour difficulties of varying degrees of seriousness shown by ten of the children either in school or at home or in both; the problems range from apathy and a craving for affection to stealing, stammering and fears.

CASES OF S.Q. SUPERIORITY FROM THE CHILD GUIDANCE SAMPLE

In both cases the behaviour at home is very much at variance with that shown at school (Table 10). The mother's ill-health may well have made Pat (No. 28) afraid of losing her; as she fears her father, this would constitute a double threat; the bed

FROM CHILD GUIDANCE SAMPLE ($N=2$)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Unskilled labourer Part-time cleaner	Council house, clean but bare	Mother suffered from ill-health for years, apathetically resigned to poverty and chronic overwork. Father violent temper	Mother affectionate Father indifferent
Semi-skilled factory worker	Three-bed-roomed council house - neat but poorly furnished	Was the last to be united with his family (only a few weeks ago) and it is too early to judge his adjustment to this change	Stepmother very affectionate and father prefers David for his independence

wetting, nail-biting and tearfulness are likely to be the outward symptoms of the strain imposed by her almost complete repression of normal aggression and self-assertion as well as signs of her chronic state of insecurity.

David (No. 29) seems to be of a more outgoing, forceful disposition. Experiencing the security of normal family life for the first time in many years, he is not permitting himself any overt expression of frustration or anger at home; at school, however, he is overreacting violently to the slightest frustration.

CASES OF S.Q.-I.Q. EQUALITY FROM THE NORMAL SAMPLE

The majority of the homes were of at least average standard regarding material conditions (Table 11); in two only (Nos. 32 and 33) was there squalor and poverty. Parental attitudes towards the child were favourable in every case and there were no

TABLE II. CASES OF S.Q.-I.Q.

<i>No.</i>	<i>Name</i>	<i>I.Q.</i>	<i>S.Q.</i>	<i>I.Q.-S.Q. discrepancy</i>	<i>R.Q.</i>	<i>No. of dibs</i>	<i>Outstanding personality traits</i>	<i>Area</i>
30	Roy	94	94	-0.2	51	1	Lacks confidence, impulsive and restless. Mother worried by his educational backwardness and lack of ambition and perseverance	Professional
31	Bill	101	102	+0.1	88	2	Gentle, imaginative, responsive and sensitive	Rural
32	Lynn	101	101	0.0	56	3	Confident but inarticulate, sensible but lacking in initiative. Mother finds her very helpful and obedient	Metro-politan
33	Jean	99	99	-0.1	62	1	Cheerful, lively, responsive and imaginative. Home confirms these impressions but at school she is said to be negative and extremely quiet	Metro-politan
34	Vida	102	104	+0.2	104	1	Friendly, confident, good natured and universally liked; sensible, reliable	Rural
35	Sue	98	99	0.0	95	2	Confident, cheerful and quite a leader; neat tidy and very persistent	Working class
36	Milly	100	99	-0.1	62	2	Responsive but lacks confidence and easily loses interest; rather timid and solitary	Working class
37	Derek	99	99	-0.1	71	0	Tense and serious, lacking in confidence, inarticulate, timid and dependent; solitary clean and tidy	Working class

EQUALITY FROM NORMAL SAMPLE (N=8)

<i>Parental occupation</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Assistant Bank manager Part-time secretary	Pleasant comfortable detached house	Until father's return from the forces had been spoilt; now friction as father is impatient with Roy's 'babyishness'	Affectionate and interested
Head cowman	Farm cottage, isolated, very clean and comfortable	Very happy; two grown-up sisters have left home and is virtually an only child. Bill most helpful at home and on the smallholding	Devoted to boy
Casual labourer	Basement flat gloomy, smelly and bare	Mother forceful and garrulous. Father ineffectual and accepts mother's lead	Quite affectionate
Machinist	Basement flat bare and dirty	Happy and united though passing through financial trouble owing to illness and unemployment	Affectionate and interested
Skilled worker Part-time char	Small house well kept	Happy and contented; grown-up brother left home some years ago so Vida is virtually an only child.	Affectionate and interested
Skilled worker	Detached council house very neat	Happy and contented; child very helpful at home, especially with the baby	Affectionate and interested
Skilled worker	Detached council house, well kept	Elderly parents with two grown up sons. Kindly and well meaning but in poor health	Very affectionate and devoted to child
Clerk	Semi-detached council house	Mother 'dour', rigid and inhibited. Domineering and over-protective towards both husband and son	Very interested in him but lacking warmth

TABLE 12. CASES OF S.Q.-I.Q. EQUALITY

No.	Name	I.Q.	S.Q.	I.Q.-S.Q. discrepancy	R.Q.	No. of sibs	Outstanding personality traits	Area
38	Dora	100	99	-0.1	85	1	Referred by G.P. for fainting fits and listlessness. Friendly, responsive, sensible and quite normal in school. At home said to be rude, defiant and obstinant	Profes- sional
39	Daisy	95	94	-0.3	95	0	Referred for dislike of school and overdependence on mother. Thoughtful, gentle, responsive and helpful	Metro- politan

broken or incomplete homes. Culturally none of the homes were very stimulating but most were of good average standard. In no case was the child rejected or burdened with too much responsibility. Though the average number of children per family is two, in fact four out of the eight can be regarded as only children since their siblings are considerably older and left home some time ago.

CASES OF S.Q.-I.Q. EQUALITY FROM THE CHILD GUIDANCE SAMPLE

Both homes are comfortably off and culturally of good average standard (Table 12). The families are very small and high standards of behaviour are set for the children. Both mothers are disappointed in them and their attitude is one of rejection. Yet from the children's response in school, it would seem that given consistent and sympathetic handling they are capable of satisfactory adjustment.

Discussion and conclusions

The differences found in I.Q.-S.Q. discrepancies in the four social areas may, to a large extent, be due to differences in parental attitude towards the children's attainment of social competence. Thus, in rural areas, life is still far less dangerous

FROM CHILD GUIDANCE SAMPLE (N=2)

<i>Parental occupation.</i>	<i>Physical aspects</i>	<i>Psychological atmosphere of home</i>	<i>Parental attitude towards child</i>
Businessman	Detached house well furnished excessively tidy and polished	Mother rigid, lacking in warmth and understanding; says faints due to child's 'bad temper and showing off' as they started after birth of baby	Mother very rejecting and father supports her view
Civil servant	Detached house beautifully kept	Mother did not want any children and both parents disappointed at having a girl; impatient with Daisy's dependent, gentle and babyish ways	Impatient, mixture of indulgence and rejection

and hurried so that children can safely be allowed much more independence and freedom of movement. In working class areas many of the families are fairly large and a number of mothers go out to work; therefore, they are likely to value the children's growing independence and foster it where possible. On the other hand, in professional class areas, standards of behaviour, cleanliness, hygiene and so on tend to be high, so that mothers often prefer to do things for the child rather than to accept his imperfect performance; moreover, the general atmosphere of the home not infrequently is rather sheltering and overprotective. In metropolitan areas life is more complex and the pace is quicker than, for instance, in rural districts. Because possible hazards are greater, parents living in a city may be less ready to encourage the children's independence and freedom of movement. Furthermore, the relative importance attached to the intellectual, educational and social level achieved by a child, varies considerably according to parental socio-economic and cultural level. Thus in a professional home, intellectual and educational acceleration are either taken for granted, or at least hoped for, while backwardness and retardation are viewed with concern and remedies sought. High standards of social competence are neither expected nor particularly valued.

In the home of the unskilled or casual labourer, on the other

hand, little interest is usually taken in the child's educational attainments; similarly, intellectual brilliance is neither expected nor even desired. But the ability to look after himself and possibly also after younger siblings, to help with household chores and shopping, to find his way about in the neighbourhood unaided – all these are fostered and encouraged from quite an early age. Thus it is prolonged dependence on adult help which causes concern rather than educational or even mental retardation.

Since aggressiveness, defiance and overtimidity are among the major problems for which children are referred to Child Guidance Clinics, one would, on *a priori* grounds, expect such a group of children to show a low level of social competence: inability or unwillingness to look after oneself are likely concomitants of immature behaviour. As would also be expected, not all children in our Child Guidance sample were found to be problem cases. Invariably a number of children find their way into a Child Guidance Clinic because of overanxiousness on the part of parents or teachers, rather than because the behaviour shown is markedly abnormal. Conversely, among our normal sample there were a number of children whose behaviour at home, in school or both suggested the need for a psychological investigation (as can be judged from some of the intensively studied cases). It is often a matter of chance – depending to some extent on parental attitudes as well as on those of other potential referring agencies, and to some extent also on the accessibility of the service – whether or not a child finds his way to a clinic. Thus the mean social quotient of a group composed entirely of 'true' problem cases may well be even lower, and thus diagnostically more significant, than that found in our Child Guidance sample.

There is also a problem of some practical importance arising from the fact that in the Child Guidance sample a much higher proportion of cases had social quotients which were one or more standard deviations below the mean: should a score of minus one sigma (an S.Q. of 90 or below) constitute the critical borderline for 'dullness' comparable to the minus one sigma I.Q. score of 85 on the Terman? Similarly, should a score of minus two sigma, (an S.Q. of 80 or below), constitute the critical borderline for

'social subnormality' in a way that an I.Q. of 70 and below is considered to do for school-children? If these assumptions be answered in the affirmative, then one-half per cent of our normal sample of 200 children and 16 per cent of the Child Guidance sample of fifty cases would fall into the 'socially subnormal' group. It must be remembered, however, that our concepts of educational backwardness, of dullness and of subnormality are to some extent determined by considerations of convenience and of environmental expectation. In the same way, the level of a child's social maturity, and still more that of an adolescent or adult, is important not so much in itself as in relation to the group in which he finds himself. However, there is an important difference in the circumstances: a pupil cannot seek his appropriate educational level of his own volition by changing his class in school; but in the playground and in the choice of friends he can to a large extent seek companions close to his own maturity level. Similarly, the dull or subnormal adult can seek work and a way of life suitable to his capacity, and thus within limits he can adjust. So, too, the level of social competence necessary to sustain a reasonably independent mode of life need not be high.

It would appear therefore that in practice a level of social maturity, relatively much lower than either mental or educational achievement, can be tolerated in a child, and still more in an adult, without special protective measures becoming necessary. Thus it seems reasonable to suggest that the borderline for backwardness and subnormality in social competence should be set very much lower than for mental or educational level. What precisely these should be will probably vary from social group to social group, and from one age to another. Clearly the concept of a measurable degree of social defect, if it can be more precisely defined, could be of great practical importance in the diagnosis of mental subnormality: what is needed is a closer study of what social competence means, and therefore the nature of the handicap, in terms of environmental imperatives and expectations.

The evidence obtained from the group, chosen because of S.Q. superiority, suggests that when such superiority is the result of external pressure and demands, various symptoms of social and emotional maladjustment are likely to develop. This may

be due to some extent to the strain imposed on a child when he tries to respond adequately to expectations which are beyond his capabilities. Since such demands are more likely to be made in homes where poverty, ill health and other stresses necessitate the child's attainment of 'social competence', the interrelationship between emotional and behaviour difficulties, unfavourable home circumstances and marked superiority of social over intelligence quotient, becomes readily apparent. In the two Child Guidance cases, relative overdevelopment in social competence seems linked to the children's attempts to prevent personal disaster by extreme helpfulness: in the one case, to prolong the mother's life, in the other to avoid the recurrence of institutionalisation.

The evidence obtained from the group where I.Q. equalled S.Q. suggests that poverty and squalor do not necessarily lead to an unusually high level of social competence. Only if the mother regards a child as a potential source of help and the child in turn responds to her expectations, is this likely to happen. Disproportionate demands are probably more often made in large, poor families living in overcrowded conditions. The absence of large families, and hence severe overcrowding, may be one of the reasons why even in the poor families in the I.Q.-S.Q. equal group there was little pressure for the children's early independence. Lastly, it is of interest to note that of the eight children selected from the Child Guidance sample for intensive study, all but one proved to be the most maladjusted emotionally from among the whole Child Guidance sample (as judged by independent ratings made by each member of the Child Guidance team).

The conclusions emerging from the case study material may be summarised in this way: where the level of social maturity was relatively low, parental attitudes seem to be characterised by unduly limited demands or by overprotection; some degree of emotional maladjustment, educational underfunctioning, or both, were concomitant features in quite a few cases. Possibly this is putting the cart before the horse since relative social immaturity may be just another aspect of emotional disturbance. In cases of social precocity relative to I.Q., our evidence is much

more clearcut: with one exception, all the children selected because of S.Q. superiority, were showing various symptoms of emotional disturbance. In most cases the family background had been, or still was insecure and disturbed. It is suggestive that quite often parents and teachers gave contradictory reports regarding the child's willingness to help; not unexpectedly, perhaps, it was found that the child who was described as being most helpful and independent at home, behaved in an immature, dependent or listless manner in school, probably as a reaction against the expectations and demands made at home. Thus the impression was gained that precocity of social development due to environmental pressure leads sooner or later to a breakdown in behaviour. This finding is in line with those reported in other investigations (Goldfarb, 1945; Bodman, 1946; Dunsdon, 1947, Pringle and Bossio, 1958 and 1960).

Thus our evidence suggests that both acceleration and retardation in social competence are largely due to the influence of the home and of family attitudes. Both extremes are found in homes which must be regarded as being psychologically unfavourable to normal development. If this is so, the Vineland Scale may be prognostic only as long as these conditions remain unaltered. Social retardation is likely to be remediable – at least to some extent – and possibly even more so than reading, since it may be less dependent upon intellectual capacity. On the other hand, it must be remembered that overexpectation regarding social achievement is apparently just as harmful and as likely to give rise to problems as it is in the more specific field of the acquisition of educational skills. Since the relation between capacity and educational attainment is both closer and more clearly understood by parents and teachers than is that between capacity and social achievement, the dangers of excessive pressure towards either independence or overprotection are that much greater.

It may be inquired what degree of acceleration or retardation in social maturity, compared with intellectual development, should be regarded as seriously deviant or abnormal to an extent likely to be indicative of emotional disturbance. Our data suggest that children of very superior ability are likely to

have lower social quotients in any case. After all, one does not expect a seven-year-old, whose mental age is ten or eleven years, to have reached or to demand an equivalent level of independence; this is analogous to the fact that only rarely are intellectually very able children emotionally equally mature. Children of dull or of low average ability, on the other hand, normally seem able to achieve a level of social development equal or somewhat superior to their mental level. In the bright group (I.Q. 116+) S.Q.s higher than I.Q.s did not occur; a negative discrepancy (I.Q. lower than S.Q.) amounting to one or more units of standard score indicated disturbance in some cases. In the average group (I.Q. 85-115) a positive discrepancy of one or more standard units again may indicate disturbance and a negative one almost certainly does so. In the dull group (I.Q. 84-) a positive discrepancy seemed a less certain indicator than in the other two groups, but a negative one was even more suggestive.

Thus for practical purposes we may say that a discrepancy of one or more standard units between I.Q. and S.Q. level - whether such a discrepancy is positive or negative - is *prima facie* a case for further clinical investigation. It is likely that an inquiry based on larger numbers would indicate differing borderlines for groups of differing ability and that retardation in particular has greater significance in dull than in able children. The Vineland Scale seems to be one means of discovering the effects of specific factors on a specific child and it throws into relief the relationship - well known to child-guidance workers - between intelligence, social competence, family relationships and emotional maladjustment.

Our evidence also suggests that the relationship between intelligence and social growth may not be a linear one. There are signs that, apart altogether from phenomena to be attributed to defects in the measures, there is a tendency for children of subnormal ability to be accelerated and for children of high ability to be retarded socially. It is possible, therefore, that the true regression of S.Q. on I.Q. is curvilinear. Because of the nature of the sampling, our data are insufficient to determine this with certainty; but if it were so, it would be in accord-

ance with a theory that looks on social maturity as a composite function of many influences, both personal and environmental.

Moreover, as emerged from the comparison of different socio-economic groups and from the intensive case studies, it seems likely that the way in which the various factors concerned affect a given child is idiosyncratic to the cultural situation and to the unique personal endowments of each individual. The child who, compared with his mental level, is markedly advanced or retarded in social competence, is likely also to be emotionally disturbed. There is, however, an important qualification: in general, a marked positive discrepancy (S.Q. higher than I.Q.) is accompanied by problem behaviour; but a marked negative discrepancy (S.Q. lower than I.Q.) may merely indicate an overprotected child who, although he may become a problem eventually, is not one at present.

The relationship of social maturity to emotional stability emerges to some extent from the comparative analysis of the normal and Child Guidance samples, and to some extent from the intensive clinical studies. The social maturity level of the problem group as a whole was significantly lower than that of the normal sample, which suggests that emotional disturbance has an inhibiting or retarding influence on social growth. On the other hand, there is also evidence from the intensive case studies that a precociously high level of social competence results in, or at least goes hand in hand with, emotional difficulties. Thus it would seem that the closest relationship between emotional stability and social maturity as measured by the Vineland Scale, exists at the extremes.

References

- BODMAN, F. (1946) 'Social maturity test', *Journal of Mental Science*, **92**, 532-54.
- BURT, SIR C. (1962) *Mental and scholastic tests*. 4th edn. Staples.
- DOLL, E. A. (1947) *Vineland Social Maturity Scale (manual of directions)*. Educational Test Bureau, Minneapolis.

- DOLL, E. A. (1953) *The Measurement of social competence*. Educational Test Bureau, Minneapolis.
- DUNSDON, M. I. (1947) 'Notes on the intellectual and social capacities of a group of young delinquents', *British Journal of Psychology*, **38**, 62-6.
- GARRETT, H. E. (1947) *Statistics in psychology and education*. Longmans.
- GOLDFARB, W. (1945) 'Effects of psychological deprivation in infancy and subsequent stimulation', *American Journal of Psychiatry*, **102**, 18-33.
- PRINGLE, M. L. KELLMER, (1965) *Deprivation and education*. Longmans.
- TERMAN, L. M., and MERRILL, M. A. (1937) *Measuring intelligence*. London, Harrap.
- VERNON, P. E. (1938) *The assessment of psychological qualities by verbal methods*. Medical Research Council, Industrial Health Research Board.
- VERNON, P. E. (1953) *Personality tests and assessments*. Methuen.

The Use of the Vineland Scale for Diagnosis and Treatment

Perhaps the main use of a scale of this kind lies in work with children who show difficulties in their behaviour or learning, at home or at school. Before any advice can be offered to parents or teachers and before a programme of re-education can be devised, a full assessment has to be made of all the child's present abilities and all his circumstances, both past and present. This means interviewing him and his parents; obtaining school and medical reports; and applying a series of educational and psychological tests. The Vineland Scale is a useful new addition to the tools available for the purpose of diagnosis and guidance. How information obtained from it may help in unravelling the nature of the difficulties which impede a child's educational progress or emotional adjustment can perhaps best be shown by presenting some illustrative case studies. They have been chosen because each one shows a number of features typical of the subgroup to which they belong. In each case the child's social development seems to be markedly discrepant, very high or low, compared with his intellectual ability.

Some illustrative studies of discrepant cases

A CASE OF RELATIVE S.Q. INFERIORITY FROM THE NORMAL SAMPLE

Allan, I.Q. 145; S.Q. 89; R.Q. 83 (No. 2, Table 7, p. 44.)

The child

From the beginning of the interview, he was lively, spontaneous and talkative. However, his attention wandered a great deal: partly because he was too interested in his surroundings, partly because he wanted to pursue his own ideas and associations rather than to reply to questions and partly because difficult problems and failure seemed to irritate him. When unable to think of a

reply he proceeded to quizz the investigator on the question put to him instead of replying to it. He expressed his dislike of reading and school in general quite forcibly, and a good deal of persuasion was needed to overcome his reluctance to do the reading test. In social competence, too, he appeared to be quite backward considering his age and ability. His interests and background experiences seemed similarly circumscribed, his main activities out of school consisting of drawing, playing with dinky toys and plasticine. Throughout the interview he displayed considerable physical restlessness as well as curiosity and drive.

School

The class teacher considered that he was correctly placed in a B stream and was suprised and rather sceptical when told that he was quite an able boy. In class he tended to be unresponsive, often inattentive and a nuisance, and his oral work showed no more promise than his written efforts. 'A cheerful, happy-go-lucky boy lacking in application' was her summary of his personality.

Family circumstances

The family lived in a semi-detached council house in a suburban district. Though neat and excessively tidy, it was rather sparsely furnished and lacking in comfort. The father, a first-generation graduate, was engaged on routine chemical analysis in a local factory. The mother, a trained nurse, gave up work on getting married. There was one other child, two years younger than Allan.

The mother seemed a cheerful, easy-going woman except for an almost obsessive preoccupation with cleanliness and hygiene, possibly induced by her professional training. Like his teacher, she thought that Allan was 'an ordinary, average sort of boy', cheerful, a chatterbox and without any special talents except drawing; this 'he does from morning to night', showing enthusiasm and quite a lively imagination (for example, he recently drew 'a bad-tempered man with a grey voice'). With the mother acting as informant, his rating on the Vineland Scale was very similar to that obtained when he himself supplied the information. Though the mother claimed she had 'to do rather a

lot for him because of his dreamy and scatty ways', one could not help but feel that her own high standards played a part in his overdependence.

Parental attitudes

Although warm and sensible in her handling of Allan, the mother seemed to provide little stimulation or opportunity for developing his independence or for widening his horizon. Nor were there any indications that the father was making a more positive contribution in these respects. From the boy's and mother's comments he appeared to be a rather shadowy and neutral figure.

Summary

The impression was gained that Allan was an able, intellectually curious, confident but emotionally and socially rather immature boy, lacking in stimulation both at home and in school. Not being stretched enough, and thus often bored, was likely to account for his unresponsiveness, inattention and nuisance value at school and for his 'dreamy and scatty ways' at home. His hostile attitude to school learning and his relative social dependence seemed to be the result of parental attitudes which were passive to the point of being negative, thus failing to foster his potentially good capacity for development. Unless some unexpected changes occur, one would predict that being deprived of the incentives of encouragement and recognition he will grow increasingly difficult to manage at home and at school; moreover, he may well find unacceptable outlets for his surplus energy, ability and drive.

A CASE OF RELATIVE S.Q. INFERIORITY FROM THE CHILD GUIDANCE SAMPLE

Brian, I.Q. 106; S.Q. 82; R.Q. 94 (No. 16, Table 8, p. 50)

The child

A frail-looking boy who was anxiously concerned about the reactions his answers might evoke. He became worried and dejected if unable to cope with any problem, seemed to expect disapproval and to mistrust praise. Throughout the interview he sucked one or more fingers. While he relaxed a little and showed more spontaneity as time went on, his marked lack of confidence

persisted. Constant reassurance was needed to prevent his giving up prematurely. Though his standard of reading was average for his age, he showed little interest in the subject. He had a rather negative attitude to home and school and there seemed nothing that he enjoyed doing or wanted to have a chance to do. The only occasion when he showed some enthusiasm was when talking about what he would like to do when he grew up: he wanted to travel all over the world, see interesting things and 'have everything different'. Though he was unable or unwilling to enlarge on this comment, the implications seemed pretty obvious.

School

His teacher found nothing favourable to say about him. He was dull, backward and lazy, lacking in concentration and confidence and a daydreamer; a rather 'negative' though obedient boy given to occasional aggressive, almost vicious outbursts towards both children and adults. The teacher felt that the father was to some extent responsible for Brian's difficulties as he seemed to expect too much from the boy and was known to coach him a good deal at home.

Family circumstances

The family lived in a large, pleasantly situated house, comfortably furnished and with a good-sized garden. Being a clergyman, the father worked a good deal at home and the mother played an active part in assisting him. There was one other child, a two-year-old girl.

The mother, a gentle, soft-spoken woman, appeared to be rather in awe of her husband. She had particularly strong feelings of inferiority and failure about Brian whom her husband thought she had made into a 'soft and lazy weakling'. As soon as the father joined us, she left all the talking to him. His disappointment, indeed rejection, of the boy was thinly disguised. In his view Brian was a lazy, excitable dreamer, disobedient and with 'an infinite capacity to ignore appeals to his better nature'. Although he conceded that Brian had suffered a good deal of ill-health and hospitalisation, this seemed to him all the more reason why the boy should try harder to make up for lost time. The family doctor's advice to seek help at the Child Guidance Clinic was, in his eyes, the final disgrace.

Parental attitudes

The father showed a complete lack of understanding of children's development, particularly of emotional needs. By now he had grown convinced that there 'must be some mental abnormality causing Brian's utter unresponsiveness to regular talks, indeed threats, about the likely consequences of his irresponsible behaviour and attitude to life, not only on his own future career but on the position of his family'. Though clearly an able man, the father's views were inflexible and rather stereotyped; 'discipline' and 'will-power' were the central concepts in his thinking about the children's up-bringing. Even when conversing about matters other than his son, he seemed to have one foot in the pulpit.

The mother's attitude had changed over the years. From compassion and protection because of Brian's ill-health and sensitivity, she had – probably mainly under father's influence – become increasingly ashamed of him and now, in despair, devoted most of her attention and warmth to the baby.

Summary

Faced with unrealistically high paternal expectations with respect both to academic achievement and to emotional maturity, Brian's reactions had become what one might have predicted: a deep lack of a sense of personal worthiness provoked by constant disapproval had led to emotional and social immaturity, the wish to succeed being smothered by chronic insecurity and bewilderment. Most of the time withdrawal into daydreams provided a refuge from what seemed to him a consistently hostile, rejecting world; while the occasional outbursts of vicious aggression were likely to be the outward signs of cumulative feelings of frustration seeking an outlet.

A CASE OF RELATIVE S.Q. SUPERIORITY FROM THE NORMAL SAMPLE

Paul, I.Q. 95; S.Q. 120; R.Q. 65 (No. 22, Table 9, p. 54)

The child

A 'little Paul Robeson' in appearance. His manner throughout the interview was serious and self-contained and his facial expression remained immobile and unsmiling. All his responses were

slow but deliberate and he showed no overt reaction to either success or failure. Life seemed to be a very serious affair to him with no room for joy or spontaneity. Though of average ability, he had not even made a start with reading. On the other hand his social competence was unusually well developed, his scores being highest on the self-help categories and lowest on the communication items. He said he disliked his contemporaries because 'they tease and hit you and I must not fight back'. He would not enlarge on this curious comment but the explanation emerged later. When asked about his favourite spare-time occupation, he said: 'I mostly look after mummy and our baby.'

School

His teachers considered Paul to be a dull, backward and very unresponsive boy, solitary and disobedient. Being most retiring in manner, he never asked for anything but waited passively; for example, he sat gazing at his dinner without touching it and only when questioned said that being a vegetarian he could not eat meat or gravy. If the canteen or supervising staff forgot, he never remonstrated. The same passivity characterised his behaviour in class and he had not been known to volunteer an answer or to help the teacher with a job. He was 'lacking in curiosity and normal high spirits'.

Family circumstances

The family lived in a fifth-floor flat in a densely populated metropolitan district. Stone stairs, corridors and a yard which the sunlight never penetrates, were the children's playground. The flat itself, though sparsely furnished, was scrupulously clean and sweet-smelling in contrast to many visited in the same block. Both Paul and his three-year-old sister were illegitimate. The father was the son of a tribal chieftain whom the mother had met while they were both studying at the university. They decided not to get married until he could find out how this might affect his future prospects in his own country. When she was expecting Paul she gave up her studies and they set up house together. This caused a complete break with her family. After finishing his studies, the father joined the Air Force and was killed while she was expecting her second child. Since then the mother has had a

series of full-time jobs, many of them residential. For the past three years she had worked as a clerk.

Maternal attitude

Though looking worn and harassed, the mother welcomed the investigator more eagerly than any of the others who were visited. 'Talking to someone willing to listen without condemning is an immense relief. Life is a hard and lonely struggle but I've made my bed and won't refuse to sleep on it.' What worried her most was that her children had to suffer for her decisions. Having read books and thought about children's upbringing, she realised the extent to which she was failing to meet their developmental needs. For example, she knew that physical punishment did little good and often aroused aggression, yet she was slapping and hitting them quite often, especially Paul to whom she had even taken a stick. Worse still, she realised that frequently it had been undeserved, her loss of temper being due to her frayed nerves and the lack of a steady male influence on her.

Paul's early life had been very unsettled and she had never had much time for mothering him. From infancy she had tried to instil his father's ideals into him so that he would be proud of his ancestry, pacifist in outlook and a vegetarian. Now she wondered whether she had overburdened the boy too early with these attitudes. She wondered too whether his dislike of school was due to the fact that he was bullied a lot, once it was realised that he would not fight back. Eventually she had been forced to modify her advice by saying that to unprovoked aggression he could retaliate in self-protection; since then he had acquired the reputation locally of being extremely aggressive.

Describing him as a thoughtful, sensitive and 'deep' boy, she said he fluctuated in his moods between wild excitement and sombre melancholy; neither she found easy to understand or handle, being a voluble and excitable person herself. He was extremely competent in all kinds of practical tasks, from lighting fires, shopping and getting tea ready, to bathing and dressing the baby. However, if corrected he often grew defiant and then stubbornly refused to help in any way.

Thus her attitude towards Paul was complex and, considered

in its total effect, rather unfavourable. Being an intelligent but highly strung woman, the strain of providing a home and standards for her children showed itself in irritability, in inconsistent handling and in thrusting too much responsibility on to Paul. Emotionally, too, the mother was making undue demands by trying too early to mould the eight-year-old into the image of his father. Though realising the folly of this, she was unable to do otherwise; 'I want him to become as perfect as his father. I know it is just my own vanity and my desire to make him come to life again through his son.'

Summary

Although conforming at home, Paul's behaviour in and out of school suggests that he may be heading for a breakdown; taciturn and disobedient, solitary and without any childish interests or enthusiasms, one suspects that his severe educational backwardness, his marked social competence and his self-contained, unsmiling passivity are danger signs. It speaks perhaps for his stability that he has up till now been able to cope with adverse circumstances of such severity and long standing.

A CASE OF RELATIVE S.Q. SUPERIORITY FROM THE CHILD GUIDANCE SAMPLE

Pam; I.Q. 72; S.Q. 101; R.Q. 55 (No. 26, Table 9, p. 54)

The child

Clothed in garments most inadequate for the time of year and for her size, Pam was unkempt, dirty and smelly. Her manner was timid and wary and she spoke in a soft, hesitant voice, confining her answers to the briefest possible replies. Though she grew friendlier and more forthcoming as the interview progressed, she never became wholly at ease and smiled only fleetingly. The above assessment of her intelligence may be an underestimate because of her lack of confidence: she was unwilling to commit herself unless quite certain of her answer and also refused to amplify meagre responses. Although a complete non-reader, she liked school and commented particularly on the kindness of her teacher. Socially she seemed unexpectedly competent and in fact when the

mother acted as informant a slightly higher score was obtained (S.Q. 109).

School

Though considered to be very dull and backward, she has always been a 'trier'. Highly strung and rather serious, she found mixing with other children difficult and cried easily if rebuked. Both the headmistress and the class teacher described the home as squalid, the mother as neglectful and unreliable and the father as unstable and self-opinionated. What most concerned her teachers was that Pam was so neglected physically and emotionally; for this they blamed the mother's rejection of the girl which bordered on hatred. In consequence she craved attention and affection. She had been referred for a psychological examination with a view to possible ascertainment as educationally subnormal. To explore whether a school for maladjusted children might not be a more appropriate placement, the psychologist referred her to the Child Guidance Clinic.

Family circumstances

The council house, in which the family and their three children lived, was neglected and comfortless with hardly any furniture. The father, a bricklayer, never stayed long in a job and had deserted his wife several times. The mother, a part-time unskilled worker in a local factory, remained sullen and suspicious throughout the interview, whereas the father was self-assured and out to impress.

Parental attitudes

The information supplied by either of them cannot be regarded as reliable as they frequently contradicted each other as well as themselves. For example, at one point the mother said she never went out at night as she did not believe in leaving children alone in the house, while later on she stated that she did so deliberately to make them 'more independent, especially the lazy, good for nothing Pam'. She had not a good word to say for the girl; when the father tried once or twice to bring out a point in her favour the mother always managed to give it a disparaging twist. After

the father left the room, she became even more vigorous in her condemnation of the child. When giving information about the Vineland Scale, it was evident that Pam was most helpful about the house in addition to looking after herself. The mother herself used the phrase 'she's better than a maid', yet even this was said without praise, let alone the recognition of what this comment implied when made about a seven-year-old. Reasons of space preclude giving details of the mother's own background which may have led to her dislike of women and girls; she was quite aware of her own attitude and of the fact that she had rejected Pam from the moment she was born, almost blaming her for surviving instead of her twin brother.

Summary

At best one would have to regard this as a very unsatisfactory home since both parents seemed to be unstable, irresponsible and untruthful. For Pam the situation was made even worse by her mother's complete rejection coupled with her exploitation of the child's eagerness to win approval and love. Though being a household drudge she continues to be denied recognition and love. Pam's craving for affection might well lead to severe maladjustment or to delinquency possibly of a sexual type, if she is left in this extremely stress-provoking situation.

RESPONSE TO 'RE-EDUCATION'

Having argued that a child's level of social maturity may be, relatively speaking, too high or too low, it may be asked whether its development can be changed. Can deliberate encouragement or training succeed in lowering or raising it? Perhaps the closest parallel is in the field of educational attainment: if a pupil falls seriously behind, compared with his classmates, his teachers or parents are likely to decide that he needs some special help. On the other hand, a child may be able to read quite well mechanically, but do badly on comprehension reading. In such a case one would aim to improve understanding of what is read. To do so, one would begin with material which is much easier than that with which the child can cope mechanically. Similarly, if a child's level of social development is too low, there may be a need

to devise a graded scheme of re-education, aimed at enabling him to master more advanced social tasks. While, if the level of social maturity is too high in relation to age and general all-round development, a child may need to be taken back to an earlier stage in social competence and then be retrained. To illustrate how this may be done, the cases of two children will be described. Both of them attended the Department of Child Study at the University of Birmingham while the writer was in charge of it. One was found to be socially very immature, the other was relatively advanced.

RESPONSE TO REMEDIAL TREATMENT OF A CASE OF S.Q. INFERIORITY

Harry, I.Q. 98; S.Q. 63; R.Q. 115. Aged 8 years 2 months.

The child

Throughout the two initial diagnostic interviews, Harry rarely spoke in sentences but confined himself to short phrases or, where possible, to monosyllabic replies. He remained excessively timid, inhibited and dependent on adult support; this fearfulness, almost terror, also showed itself in his stance, gait and posture. He never looked at the examiner, became no more relaxed during the second interview and derived no interest or pleasure from any of the tests (and his successes in them) or from the variety of toys put at his disposal. Though a good and fluent reader, he never read for enjoyment. There was no doubt that he was a very maladjusted child who was socially and emotionally extremely immature and dependent.

School

Described as overtimid, solitary, unresponsive and showing many nervous mannerisms; other children tended to regard him 'as a bit of a joke'. Because of his good attainment in English subjects, he had been placed in an A stream in the Juniors. After a time the head teacher decided to try him in a lower stream in the hope that he would find the slower pace less of a strain; but this had made no difference to Harry's excessive timidity, lack of initiative and tendency to cry at the slightest provocation.

Family circumstances

The family lived in a terrace type house, with the front door opening straight on to the pavement; it was situated in a congested urban area. It was clean and neat though the furniture looked rather worn. The father, a semi-skilled factory worker, had been with the same firm ever since he left school at the age of fourteen years. Until her marriage the mother had intermittently taken unskilled jobs. She had been completely under her own mother's domination and married against the latter's will. At the time of her marriage she was forty-three years old and her husband twelve years her junior. Her own mother's opposition, especially to her pregnancy, made the mother most unhappy.

Parental attitudes

Labour was long and difficult and, partly because Harry was not a robust baby, the mother was extremely anxious and overprotective. Her attitude to him had remained unchanged throughout the years. To his brother, three years his junior, she had accorded much more independence, possibly because meanwhile her own mother, whose jealousy and hatred of the baby had been intense, had died; possibly, too, the second child had a more assertive personality. The father, a simple, slow, retiring man, had taken little interest in either of his sons.

Working hypotheses

The mother's guilt at disobeying her own mother had haunted her during Harry's early life. Fearful for his safety and well-being, and made more anxious by his rather indifferent health and uneven development (he spoke very late for instance), she was grossly overprotective towards him. With little male influence during the formative years, he had grown into an excessively anxious, insecure and fearful boy, equally terrified of adults and other children. His 'odd' behaviour, inability to take part in games, P.E. and other group activities had led his peers to ridicule him which only served to intensify his terror.

Results of treatment

In the first place it was decided to arrange a term's observation to see whether Harry would be able to respond to non-interpretive

play therapy and to carefully graded and supervised opportunities to mix with other children; and also to explore to what extent the mother was able and willing to cooperate with the Psychiatric Social Worker. Subsequently Harry attended for a further forty-five weekly sessions.

The mother

Though she was anxious to do what was best for the boy, she tended to carry out suggestions to the letter but never generalised beyond any point specifically discussed with her. Her own problems, including a lack of confidence and restricted intellectual understanding, undoubtedly limited her capacity for greater insight into the nature of the boy's difficulties and how she could help him to overcome them. Lacking the active support of her husband and having no friends of her own, did not improve matters. However, within these limitations and with the help of regular weekly interviews, she became able to encourage Harry to become more independent and provide increasing opportunities for him to engage in boyish activities.

The child

With Harry we concentrated on providing him with simple, practical experience – for example, how to use a hammer or screwdriver; on teaching him skills, acquired long before by boys of his age, for example how to kick and throw a ball, how to walk downstairs without tightly clutching the bannister and putting both feet on the same step; and on mixing with other boys in games and social activities, for example playing simple ball games and joining in an end-of-term tea party. In addition he was given time and encouragement to play with the usual range of therapeutic materials, the problem here consisting in breaking down his passivity; for quite a long time he would simply stand and look at material but make no attempt to touch it or play with it in any way.

Though his play never became really free and spontaneous, considerable changes did take place. He learned to swim, to play cricket and to ride a bicycle; he engaged in a number of creative activities and derived satisfaction from them; he accepted respon-

sibilities of a simple kind both at home and at school and shared in the organisation of various activities with other boys. The school reported that the nervous mannerisms and overtimidity were no longer in evidence, that he was able to mix with his classmates and in turn was accepted by them; however, he had remained timid in his relationships with adults, never making a first approach and only talking to them if he knew them quite well. Retesting with the Vineland Scale also showed some improvement since Harry's social quotient had gone up by one and a half standard deviations (from 63 to 78).

RESPONSE TO REMEDIAL TREATMENT OF A CASE OF S.Q. SUPERIORITY

Jean, I.Q. 94; S.Q. 120; R.Q. 80. Aged 9 years 6 months.

The child

From the outset she was friendly and talkative, anxious to please and to make a good impression. Her frequent and glowing references to her parents and two brothers seemed somewhat excessive for a nine-year-old; and some of her replies on the personality tests were rather typical of those given by emotionally deprived children. Otherwise she seemed a very normal, responsive girl. She had plenty of interests and liked school. Though able to read she much preferred other activities, particularly those of a non-academic, rather feminine type such as sewing and cooking.

Family circumstances

Her father died when she was three years old and from then onwards she had had a very unsettled life, much of it being spent in Children's Homes. When her mother also died four years later, an aunt managed to trace Jean and after several short visits and a trial period of long-term fostering, the aunt decided to adopt her legally. This had taken place about a year ago. Jean had then seemed an easy responsive child, independent and helpful about the house and pathetically grateful for everything. However, in recent months she had become very possessive towards her adopted mother, jealous of her two adopted brothers, unwilling to help with any jobs and rather moody; in addition, she was

found to hoard food and trinkets. The adopted mother felt at a loss to understand this changed behaviour, saying it would not have surprised her when they first took in Jean but she was baffled by it occurring now.

Parental attitudes

These were entirely positive and favourable. Indeed, the adopted mother had taken the initiative in seeking advice as she was anxious to avoid 'doing the wrong thing'. She had always wanted to have a daughter and had from the beginning enjoyed doing things with and for Jean. Rather than blame the girl for her background, she saw her unfortunate experiences as extenuating circumstances and feared that perhaps a lack of understanding on her part had led to the present difficulties.

Working hypotheses

It seemed that the years of institutional care and of insecurity had had some of the expected consequences. Socially Jean had become precociously immature and emotionally she was over-anxious for approval and affection. When she first came to live with her adopted family she was on her best behaviour – both because she was genuinely happy and because so much was at stake for her. Then the thin shell of social competence broke: her emotional insecurity became apparent in her possessive attitude towards people as well as things; while her mood swings were probably caused by her guilt at her own behaviour and by her inability to understand or cope with her own feelings. However, as the psychological interview indicated quite a stable personality pattern, this regressive behaviour was likely to be temporary only, provided it was wisely handled. It was decided that in the first place the P.S.W. should have a series of interviews with the adoptive mother to support her through the period of Jean's de-learning to live again in a normal family. If her behaviour deteriorated or the mother continued to feel concerned, the child would also be offered a place for regular weekly attendance.

Results of treatment

Our prediction proved to be correct. For a period Jean continued to claim a disproportionate amount of the mother's time and

affection and reacted with sullenness when she did not succeed in monopolising her; she would undertake responsibilities such as looking after herself, laying the table or washing up with the mother's help but not on her own; the hoarding did not abate for some time but gradually Jean permitted it to be turned into a shared secret and finally a shared joke. As the mother grew more confident that she had not been to blame and that she was coping admirably, her interviews with the P.S.W. became less frequent and terminated after eight months. A final check with the Vineland Scale showed that Jean's social competence was now about average for her age (a decrease of two standard deviations, from 120 to 100).

Conclusions

It seems then as if—at least in some cases—a level of social competence which is unduly high or low for a particular child, can be modified provided appropriate environmental modifications can be achieved. In its present form the Vineland Scale is probably still too coarse a tool for measuring such changes adequately beyond the age of 10 years. A greater number of items at each of the subsequent age levels would go a long way to turn it into a more sensitive and discriminating instrument for older children. Such an improved version is likely to be available in the near future.

Finally, is it advisable to attempt to change a child's level of social competence? Does it produce a lasting effect or is it merely ephemeral and possibly even harmful? These questions will have a familiar ring to those who have been concerned about the controversy regarding the value of remedial work in reading. There would seem to be quite a close parallel here. It has been argued that, at best, remedial teaching brings about short-term gains and that improvement is not maintained when the treatment is terminated (Curr and Gourley, 1953 and 1960); and that, at worst, it may be harmful since concentrating on a child's backwardness may make him even more unhappy by emphasising his shortcomings while interfering with his 'natural growth pattern' cannot be expected to yield lasting results (Collins, 1961).

These consequences are indeed likely when remedial treatment consists simply of continuing with the same medicine in more concentrated form, i.e. using more or less varied, and more or less enlightened teaching methods. If the child's attitudes to learning and to his failure are ignored, if no account is taken of his background, of parental attitudes to him (and to his difficulties) and if all the factors which have led up to these attitudes, then no lasting change can reasonably be expected. Such treatment is merely symptomatic and ignores the underlying motivational and possibly also perceptual conditions.

Similarly, if one were to aim simply at raising a child's level of social competence, he may well 'improve'. Making him learn the various social tasks on the Vineland Scale appropriate to his chronological age would be analogous to the efforts of some remedial teachers who drill their pupils with the words contained in the most frequently used reading books and tests. As has been shown earlier, a precocious level of social competence is likely to be attained by children in problem homes and in institutional care; but just as with 'reading improvement', research indicates that such a high level of maturity is only precariously maintained, often reached at the cost of emotional maladjustment and liable to collapse when external pressures are removed.

On the other hand there is evidence to show that when remedial education consists of a total approach to the failing child, in which creative and therapeutic activities as well as skilled case work with the parents play an essential part, children at all levels of ability may be able to derive lasting benefit from it (Pringle and Gulliford, 1953; Pringle and Sutcliffe, 1960; Pringle, 1962). Clinical evidence suggests that the position is very similar with regard to social competence: skilled case work, subsequent to comprehensive diagnostic procedures, can help a child to achieve a more satisfactory – because more appropriate to his general level of development – level of social growth. There still remains the task of collecting evidence on a sufficiently large scale to substantiate this conclusion. Here Child Guidance Clinics could make an important contribution to knowledge in this field of child development.

It looks as if the assessment of social competence can be of

considerable clinical value. By using the Vineland Social Maturity Scale, a new tool is added to the battery of individual measuring devices which have already proved their value in psychological work. The scale is a means of supplementing by a quantitative measure the rather subjective, qualitative judgments about social growth which are commonly made in the diagnosis and treatment of backward, maladjusted or delinquent children.

References

- COLLINS, J. E. (1961) *The effects of remedial education*. Oliver and Boyd.
- CURR, W., and GOURLEY, N. (1953) 'An experimental evaluation of remedial education', *British Journal of Educational Psychology*, **23**, 45-55.
- CURR, W., and GOURLEY, N. (1960) 'The effect of practice on performance: scholastic tests', *British Journal of Educational Psychology*, **30**, 155-67.
- PRINGLE, M. L. KELLMER, and GULLIFORD, R. (1953) 'A note on "An evaluation of remedial education"', *British Journal of Educational Psychology*, **23**, 196-9.
- PRINGLE, M. L. KELLMER, and SUTCLIFFE, B. (1960) *Remedial education - an experiment*. Caldecott Community and University of Birmingham; also: *Deprivation and education* (1965). Longmans.
- PRINGLE, M. L. KELLMER (1962) 'The long-term effects of remedial education', *Vita Humana*, **5**, 10-33.

Appendix to Chapter 3

Discrepancy distributions in the Normal, Child Guidance and Intensive samples

An analysis of I.Q.-S.Q. discrepancies in the four areas suggests that there are some interesting displacements of social quotient (Table 13). It will be seen that the rural and working class area samples are somewhat weighted with children whose S.Q.s are higher than their I.Q.s. The metropolitan and professional area groups on the other hand, are slightly weighted with cases whose S.Q. level is lower than their I.Q. level. This difference is significant at the extremes; that is to say the rural sample is significantly weighted with children whose S.Q. shows acceleration compared with their I.Q. (rural - professional $\chi^2 = 15.91$, d.f.2, $P < 0.01$). The distribution of discrepancy scores for the whole sample shows a slight negative skew. The mean I.Q.-S.Q. discrepancy for boys was found to be -0.19 and that of girls -0.26 .

The difference score distribution among the intensive cases, those of the remainder of the normal sample and of the Child Guidance group is shown in Table 14. The distribution of the intensively studied group reflects, of course, simply the method by which the cases were selected; as can be seen, it resulted in a somewhat larger proportion of children showing extreme S.Q. superiority. Comparison between I.Q.-S.Q. discrepancies found among the Child Guidance and the total normal sample indicates that there are twice as many children with a difference score of -1 or more in the former group; conversely, more than twice as many children in the normal sample have a difference score of $+1$ or more, than in the Child Guidance sample ($\chi^2 = 9.23$, $P > 0.01$).

It was found that dull children in general show a marked tendency towards relative acceleration in social competence while children of superior intelligence generally tend in the

TABLE 13. DISCREPANCIES IN TERMS OF STANDARD SCORES BETWEEN I.Q. AND S.Q. IN THE FOUR AREA SUBSAMPLES AND IN THE TOTAL SAMPLE

Discrepancy*	S.Q. above I.Q.				I.Q. = S.Q.				S.Q. below I.Q.			
	+ 2.00 or more		+ 1.00 to + 1.99		+ 0.99 to - 0.99		- 1.00 to - 1.99		- 2 or more			
	N	%	N	%	N	%	N	%	N	%	N	%
Rural area, N = 50	3	6	10	20	34	68	3	6	-	-	-	-
Working class area, N = 50	2	4	8	16	34	68	4	8	2	4	2	4
Metropolitan area, N = 50	1	2	6	12	29	58	10	20	4	8	4	8
Professional area, N = 50	-	-	5	10	30	60	9	18	6	12	6	12
Total sample, N = 200	6	3	29	14½	127	63½	26	13	12	6	12	6

* The positive deviations indicate a higher standing on S.Q. than I.Q. in terms of sigma units, the negative a lower standing.

INTELLIGENCE AND SOCIAL COMPETENCE

TABLE 14. DISCREPANCIES IN TERMS OF STANDARD SCORES BETWEEN I.Q. AND S.Q. IN THE INTENSIVELY STUDIED CASES, THE REST OF THE MAIN SAMPLE AND THE CHILD GUIDANCE GROUP

	<i>S.Q. above I.Q.</i>				<i>I.Q. = S.Q.</i>		<i>S.Q. below I.Q.</i>			
<i>Discrepancy*</i>	<i>N⁺² %</i>		<i>N⁺¹ %</i>		<i>N⁰ %</i>		<i>N⁻¹ %</i>		<i>N⁻² %</i>	
Intensive group, N = 30	6	20	6	20	10	34	1	3	7	23
Rest of normal sample, N = 170	—	—	23	13	117	69	25	15	5	3
Total normal sample, N = 200	6	3	29	14½	127	63½	26	13	12	6
Child Guidance group, N = 50	—	—	4	8	27	54	12	24	7	14

* See footnote to Table 13.

TABLE 15. DISCREPANCIES IN TERMS OF STANDARD SCORES BETWEEN I.Q. AND S.Q. IN THE NORMAL SAMPLE ACCORDING TO LEVEL OF INTELLIGENCE

Discrepancy*	S.Q. above I.Q. + 1 or more		I.Q. = S.Q.		S.Q. below I.Q. - 1 or more	
	N	%	N	%	N	%
I.Q. 84 and below, N = 12	5	42	6	50	1	8
I.Q. 85 - 115, N = 147	28	19	104	71	15	10
I.Q. 116 and above, N = 41	0	0	23	55	18	45

* See footnote to Table 13.

TABLE 16. DISCREPANCIES IN TERMS OF STANDARD SCORES BETWEEN I.Q. AND S.Q. IN THE CHILD GUIDANCE SAMPLE ACCORDING TO LEVEL OF INTELLIGENCE

Discrepancy*	S.Q. above I.Q. + 1 or more		I.Q. = S.Q.		S.Q. below I.Q. - 1 or more	
	N	%	N	%	N	%
I.Q. 84 and below, N = 13	—	—	11	85	2	15
I.Q. 85 - 115, N = 30	4	13	15	50	11	37
I.Q. 116 and above, N = 7	—	—	1	(14)	6	(86)

* See footnote to Table 13.

TABLE 17. SUMMARY OF TEST RESULTS FOR THE INTENSIVELY STUDIED CASES, INCLUDING THE CHILD GUIDANCE GROUP

		Mean I.Q.	Range	Mean S.Q.	Range	Mean D.S.	Range	Mean R.Q.	Range
S.Q. <i>below</i>	{ normal sample, N = 10 Child Guidance group, N = 6	136 117.2	114-172 83-152	99.6 85.7	87-112 68-103	-2.0 -2.7	-0.4 to -4.8 -2.1 to -3.3	108.5 104.0	60-155 67-156
S.Q. <i>above</i>	{ normal sample, N = 11 Child Guidance group, N = 2	87.9 84.0	72-100 —	111.5 102.5	91-130 —	+2.0 +1.3	+1.0 to +3.2 —	72.8 60.5	52-106 —
S.Q. <i>equals</i>	{ normal sample, N = 8 Child Guidance group, N = 2	99.3 97.5	94-102 —	99.6 96.5	94-104 —	-0.1 -0.2	-0.2 to +0.2 —	73.6 90.5	51-104 —

opposite direction, namely, relative retardation in social competence. However, among problem children these tendencies were either reversed or shown to an extreme degree (Table 16). Thus, in the dull group none of the children in the Child Guidance sample show S.Q. acceleration compared with I.Q. whereas nearly half of the dull children from the normal group do. This difference tested by χ^2 (with Yates's correction) is significant ($P = 0.04$, d.f.1). In the group with average intelligence, relatively more children are socially retarded in the Child Guidance group, compared with the normal sample, and the difference is again significant ($P < 0.01$, d.f.1). Among the bright children there are too few cases to establish a statistically reliable difference. There is, however, a tendency apparent from the figures, for more children in the problem group to be socially immature compared with their intellectual level than there are in the normal group of children.

A summary of the intensively studied subsamples is given in table 17. The normal cases showing I.Q. superiority have a mean I.Q. of more than one standard deviation above the assumed mean of 100, whereas the mean S.Q. falls at or below the assumed mean; the mean R.Q., assessed on an individual word recognition test, is slightly above the assumed mean of 100 but the range is extremely wide. Those showing S.Q. superiority have a mean I.Q. which is almost one standard deviation below the mean and a mean S.Q. about one sigma above the mean. The mean R.Q. falls close to the borderline for educational subnormality and the range indicates that there are no children whose reading is above average. The mean R.Q. and range are very similar among the cases of S.Q.-I.Q. equality. With regard to the children from the Child Guidance group, selected for intensive study, the trend of their test results is in the same direction though their number was very small.

Bibliography

- ALLPORT, G. E. (1949) *Personality*. Constable.
- ANDERSON, H. H., and ANDERSON, G. L. (1954) 'Social development', in *Manual of Child Psychology*, ed. L. Carmichael, Chap. 19. New York, John Wiley.
- BODMAN, F. (1946) 'Social maturity test', *Journal of Mental Science*, **92**, 532-41.
- BODMAN, F., MCKINLEY, M., and SYKES, K. (1950) 'The social adaptation of institution children', *The Lancet*, **1**.
- BOWLEY, A. H. (1944) *The natural development of the child*. Livingstone.
- BRACKEN, HELMUT VON (1943) 'Investigation on twins concerning the development of self-sufficiency in children' (trans. by Marianne H. Wasson). *Training School Bulletin*, **39**, 177-88 and 198-208.
- BRADWAY, KATHERINE P. (1937a) 'The social competence of deaf children', *American Annals of the Deaf*, **82**, 122-40.
- BRADWAY, KATHERINE P. (1937b) 'Social competence of exceptional children: I. Measurement of social competence; II. The mentally subnormal; III. The deaf, the blind and the crippled', *Exceptional Children*, **4**, 1-8, 38-42, 64-9.
- BRADWAY, KATHERINE P. (1938) 'Social competence of grade school-children', *Journal of Experimental Education*, **6**, 326-31.
- BRIDGES, K. (1931) *Social and emotional development of the preschool child*. Routledge and Kegan Paul.
- BUHLER, C. (1947) *From birth to maturity*. Routledge and Kegan Paul.
- BURT, SIR C. (1962) *Mental and scholastic tests*. Staples, 4th edn.
- CAPWELL, DORA F. (1945) 'Personality patterns of adolescent girls: II. Delinquents and non-delinquents', *Journal of Applied Psychology*, **29**, 289-97.
- CERES, C. MILDRED (1946) 'A study of the Vineland Social Maturity Scale applied to young normal children', unpublished M.A. thesis, State University of Iowa.
- COLLINS, J. E. (1961) *The effects of remedial education*. Oliver and Boyd.

- CURR, W., and GOURLEY, N. (1953) 'An experimental evaluation of remedial education', *British Journal of Educational Psychology*, **23**, 45-55.
- DAVIS, K. (1940 and 1947) 'Extreme social isolation of a child', *American Journal of Sociology*, **45** and **52**.
- DEACON, KATHRYN F. (1942) 'An experiment in the training of low-grade defectives', *American Journal of Mental Deficiency*, **47**, 195-202.
- DOLL, E. A. (1937) 'The inheritance of social competence', *Journal of Heredity*, **128**.
- DOLL, E. A. (1939) 'Growth studies in social competence', *Proceedings of the American Association on Mental Deficiency*, **44**, 90-6.
- DOLL, E. A. (1940) 'Annotated bibliography on the Vineland Social Maturity Scale', *Journal of Consulting Psychology*, **4**, 123-32.
- DOLL, E. A. (1947) *The Vineland Social Maturity Scale. Manual of Directions*. Educational Test Bureau, Minneapolis.
- DOLL, E. A. (1953) *Measurement of social competence*. Educational Test Bureau, Educ. Publishers, Inc.
- DOLL, E. A., and JAMES, J. BROOKS (1942) 'The therapeutic uses of the Vineland Social Maturity Scale in its application to adult prisoners', *Journal of Criminal Psychopathology*, **3**, 347-58.
- DOLL, E. A., and FITCH, KATHRYN A. (1939) 'Social competence of juvenile delinquents', *Journal of Criminal Law and Criminology*, **30**, 52-67.
- DOLL, E. A., and LONGWELL, S. GERALDINE (1937) 'Social competence of the feeble-minded under extra-institutional care', *Psychiatric Quarterly*, **11**, 450-64.
- DOLL, E. A., and MCKAY, B. ELIZABETH (1937) 'The social competence of special class children', *Journal of Educational Research*, **31**, 90-106.
- DUNSDON, M. I. (1947) 'Notes on the intellectual and social capacities of a group of young delinquents', *British Journal of Psychology*, **38**, 62-6.
- FISHER, R. A. (1941) *Statistical methods for research workers*. Oliver and Boyd, 8th edn.

BIBLIOGRAPHY

- FISHER, R. A., and YATES, F. (1943) *Statistical tables for biological, agricultural and medial research*. Oliver and Boyd.
- GAMBARD, PROVIDENCE K. (1944) 'Analysis of the Vineland Social Maturity Scale', *American Journal of Mental Deficiency*, **48**, 359-63.
- GARRETT, H. E. (1947) *Statistics in psychology and education*. Longmans, 3rd edn.
- GESELL, A. (1940) *The first five years of life*. Methuen.
- GESELL, A., and ILG, F. L. (1946) *The child from five to ten*. Hamish Hamilton.
- GOLDFARB, WILLIAM (1943) 'The effects of early institutional care on adolescent personality', *Journal of Experimental Education*, **12**, 106-29.
- GOLDFARB, WILLIAM (1945) 'Effects of psychological deprivation in infancy and subsequent stimulation', *American Journal of Psychiatry*, **102**, 18-33.
- GOODMAN, ALICE W. (1940) 'Social competence of institutionalised young female epileptics', *American Journal of Mental Deficiency*, **45**, 219-27.
- GOODMAN, ALICE W. (1941) 'Deviation of social competence in selected epileptics', *American Journal of Orthopsychiatry*, **11**, 104-10.
- GOTTESGEN, M. C. (1957) 'The use of the Vineland Social Maturity Scale in the planning of an educational programme for non-institutionalised low-grade mentally deficient children', *Dissertation Abstracts*, **17**.
- HILL, M. E. (1939) *The education of backward children*. Harrap.
- ISAACS, S. (1933) *Social development in young children*. Routledge and Kegan Paul.
- KELLY, ELIZABETH M. (1941) 'A program to develop social maturity in the orthopedic child', *Exceptional Children*, **8**, 75-9.
- KLUCKHOHN, C., and MURRAY, H. A. (1949) *Personality in nature, society and culture*. Jonathan Cape.
- LEVY, D. (1943) *Maternal over-protection*. Columbia University Press.
- LINDQUIST, E. F. (1940) *Statistical analysis in educational research*. The Riverside Press.

- LURIE, LOUIS A., *et al.* (1941) 'Intelligence quotient and social quotient', *American Journal of Orthopsychiatry*, **11**, 111-17.
- LURIE, LOUIS A., ROSENTHAL, FLORENCE M., and OUTCALT, LOUISA C. (1942) 'Diagnostic and prognostic significance of the difference between the intelligence quotient and the social quotient', *American Journal of Orthopsychiatry*, **12**, 104-114.
- MASLOW, A. H. (1954) *Motivation and personality*. Harper.
- MAXFIELD, K. E., and BUCHHOLZ, S. (1957) 'A social maturity scale for blind, preschool children', New York, American Foundation for the Blind.
- MAXFIELD, K. E., and FJELD, HARRIET A. (1942) 'The social maturity of the visually handicapped preschool child', *Child Development* **13**, 1-27.
- MCINTIRE, J. THOMAS (1942a) 'Babbitt Hospital: An experiment in the treatment of cerebral palsied children', *Training School Bulletin*, **39**, 158-63.
- MCINTIRE, J. THOMAS (1942b) 'Cerebral palsy treatment experiment', *Crippled Child*, **20**, 94-6.
- MESSINGER, VIRGINIA M. (1940) 'A longitudinal comparative study of nursery school and non-nursery school children', unpublished Ph.D. thesis, State University of Iowa.
- MORALES, NOEMI (1942) 'The social competence of idiots', *American Journal of Mental Deficiency*, **47**, 209-14.
- MUENCH, GEORGE A. (1944) 'A follow-up of mental defectives after eighteen years', *Journal of Abnormal and Social Psychology*, **39**, 407-18.
- MYERS, S. O. (1948) 'Condoover Hall School for the Blind', *Educational Review*, **1**.
- MYKLEBUST, HELMER R., and BURCHARD, EDWARD M. L. (1945) 'A study of the effects of congenital and adventitious deafness on the intelligence, personality and social maturity of school children', *Journal of Educational Psychology*, **36**, 321-43.
- OLDFIELD, R. C. (1941) *The psychology of the interview*. Methuen.
- POWELL, LEE, and LASLETT, H. R. (1941) 'A survey of the social development of the 10th-, 11th- and 12th-grade pupils in a small high school', *Journal of Experimental Education*, **9**, 361-3.

BIBLIOGRAPHY

- PRINGLE, M. L. KELLMER, and GULLIFORD, R. (1953) 'A note on "An evaluation of remedial education"', *British Journal of Educational Psychology*, **23**, 196-9.
- PRINGLE, M. L. KELLMER (1962) 'The long-term effects of remedial education'. *Vita Humana*, **5**, 10-33.
- PRINGLE, M. L. KELLMER (1965) *Deprivation and education*. Longmans.
- SCHONELL, F. J. (1945) *The psychology and teaching of reading*. Oliver and Boyd.
- SNEDECOR, G. W. (1940) *Statistical Methods*. Iowa State College Press, 3rd edn.
- SPRINGER, N. NORTON (1941) 'The social competence of adolescent delinquents: a comparative study of White and Negro first offenders and recidivists', *Journal of Social Psychology*, **14**, 337-48.
- TAYLOR, E. A. (1946) *Experiments with a backward class*. Methuen.
- TERMAN, L. M. and MERRILL, M. A. (1937) *Measuring intelligence*. Harrap.
- TOYNBEE, A. J. (1939) *A study of history*. Vol. III: 'The growth of civilisations', Oxford University Press.
- TROUP, EVELYN and LESTER, OLIVE P. (1942) 'The social competence of identical twins', *Journal of Genetic Psychology*, **60**, 167-75.
- VERNON, P. E. (1938) *The assessment of psychological qualities by verbal methods*. Medical Research Council, Industrial Health Research Board.
- VERNON, P. E. (1953) *Personality tests and assessments*. Methuen.
- WATTS, FREDERICK P. (1941) 'A comparative clinical study of delinquent and non-delinquent Negro boys', *Journal of Negro Education*, **10**, 190-207.
- WERNER, E. (1957) 'Milieu differences in social competence', *Journal of Genetic Psychology*, **91**.
- WHITCOMB, MARIAN A. (1945) 'A comparison of social and intellectual levels of 100 high-grade adult mental defectives', *American Journal of Mental Deficiency*, **50**, 257-62.
- WILE, IRA S. and DAVIS, ROSE M. (1939) 'Behavior differentials of children with I.Q.'s 120 and above and I.Q.'s 79 and below

with some reference to socio-economic status', *American Journal of Orthopsychiatry*, **9**, 529-39.

WILSON, MARGARET T. (1941a) 'Mental ages and social ages of normal and defective twins and siblings', *American Journal of Mental Deficiency*, **45**, 374-9.

WILSON, MARGARET T. (1941b) 'Social competence of normal and defective twins', *American Journal of Orthopsychiatry*, **11**, 300-3.

Author Index

ANDERSON, H. H., 1

BODMAN, F., 17, 18, 34, 67

BOWLEY, A. H., 5

BURT, C., 27

COLLINS, J. E., 91

CURR, W., 91

DAVIS, K., 6

DOLL, E. A., 5, 11, 12, 13, 14, 16, 26, 36, 38, 40, 42

DUNSDON, M. I., 18, 34, 67

FISHER, R. A., 30

GARRETT, H. E., 29

GOLDFARB, W., 15, 67

HILL, M. E., 27

OLDFIELD, R. C., 28

PRINGLE, M. L. KELLMER, 18, 67, 92

SCHONELL, F. J., 28, 29

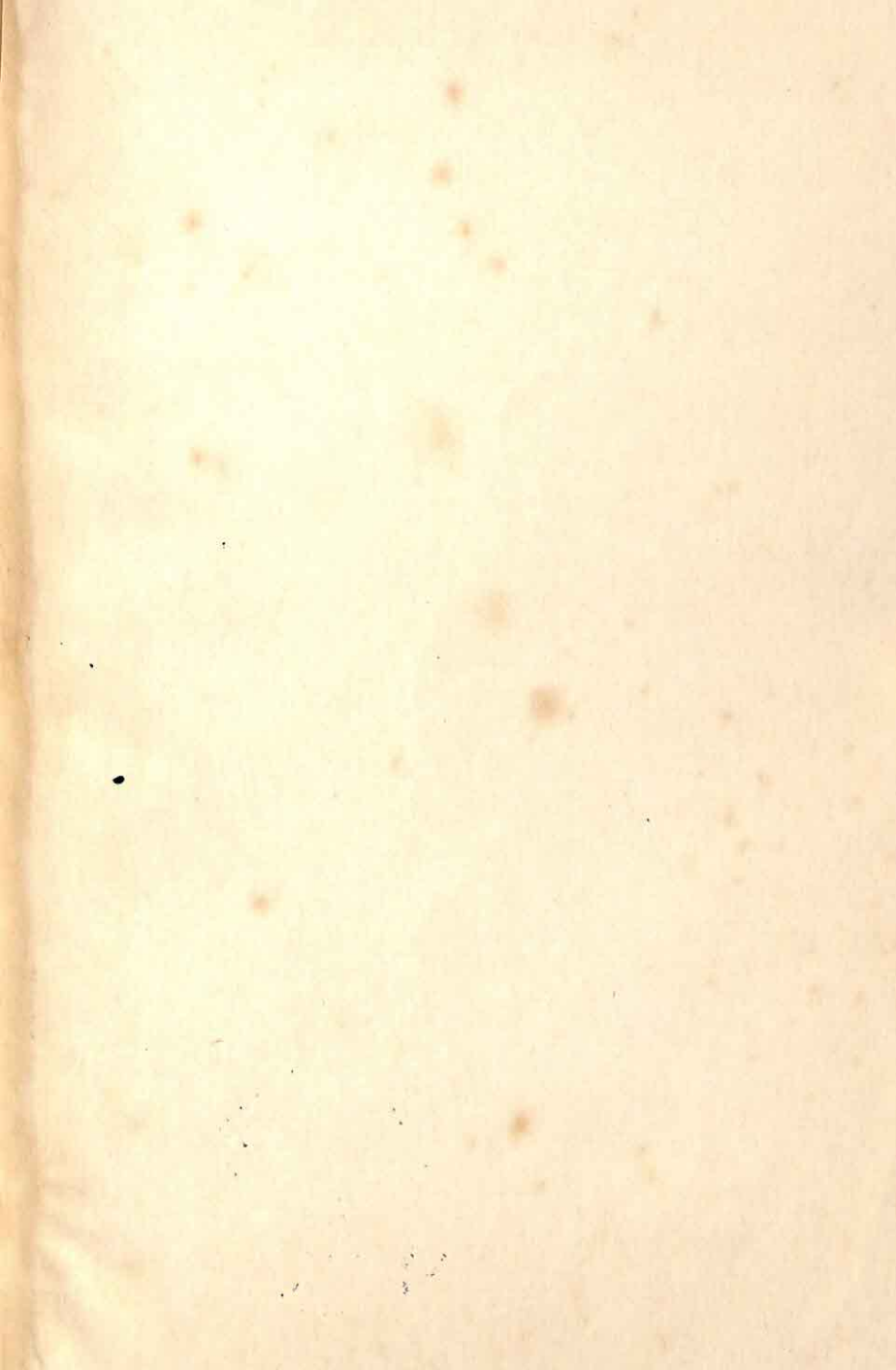
TAYLOR, E. A., 27

TERMAN, L. M., 7, 42

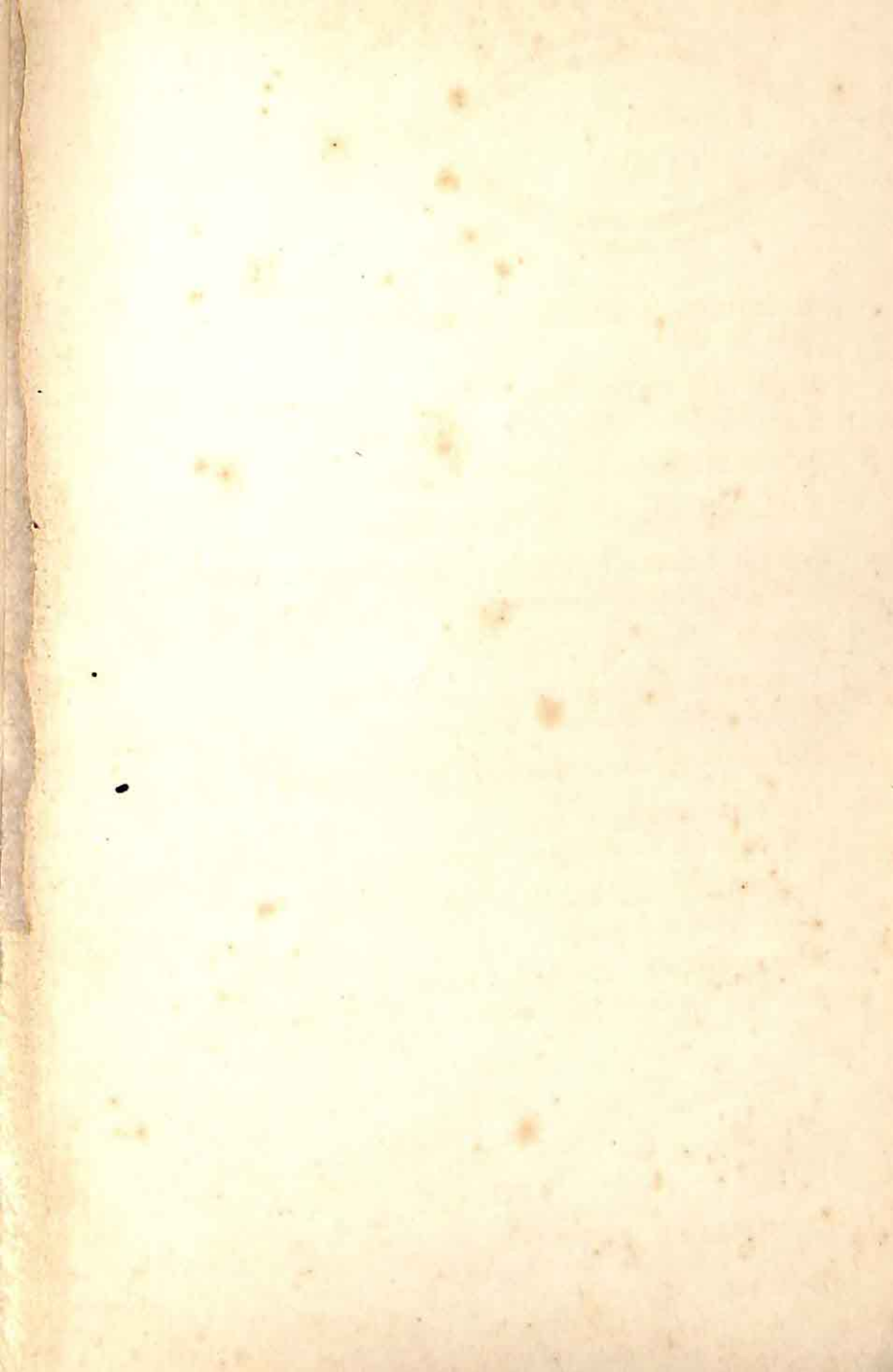
TOYNBEE, A. J., 2

VERNON, P. E., 11, 28











An Introduction to the Child Care Service
John Stroud

Social Science and Social Studies in Secondary Schools
W. Philip & R. Priest

Communication in Speech *Arthur Wise*

Student Guidance *F. Claude Palmer*

A Basic Science Course for Secondary Schools
Edited by Michael Robinson

Drama *Brian Way*

Programmed Learning in the Schools
John Leedham & Derick Unwin

Introducing Social Studies *W. J. Hanson*

Investment in Children
Edited by M. L. Kellmer Pringle

Social Learning and its Measurement
M. L. Kellmer Pringle

Living Speech *Diana L Morgan*
An Approach to Literature *R. T. H. Stevens*



LONGMANS

12/6 NET